University of Alberta

Evaluative reactions towards "foreign accented" English speech: the effects of listeners' experience on their judgements

by

Kyoko Sato

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of Master of Science

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Abstract

This study examines the evaluations of non-native speakers of English by native speakers of English. High school students and university students judged native speakers of English, Cantonese, and Ukrainian on their personality traits on the basis of taped speech samples. In order to investigate possible effects of familiarity with foreign accents and their speakers on evaluations and comprehensibility of non-native speech, evaluations by listeners in a rural community and listeners in an urban centre were compared. Possible effects of listeners' age, gender, experience in travelling abroad, educational level, and perception of speakers' ethnic backgrounds were also considered. The results indicate that university students in an urban centre do not evaluate accented speech more negatively than that of native speakers. The high-school students in both urban and rural areas evaluated native speakers more favourably than non-native speakers. Social, educational, and linguistic implications of the present study are discussed.

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Table of Contents

Chapter 1. Introduction / 1
- Background / 1
- Research questions / 3
- Definition of terms / 3
- Overview / 4

Chapter 2. Literature Review / 56
- Foreign accent and issues of intelligibility and comprehensibility / 6
- World Englishes and their intelligibility in an international context / 21
- Accent and discrimination / 29
- ESL and linguistic/ethnic minorities / 36
- Formation of personality impression / 42
- Accent and social evaluation / 44
  - Social class and language evaluations / 44
  - Degree of accentedness and evaluations / 45
  - Listeners' reactions towards speech with various accents / 46
- Summary / 50

Chapter 3. Experiment / 51
- Research hypotheses / 51
- Method / 52
  - Stimulus text / 52
  - Participants / 52
  - Procedure / 56
- Results / 57
  - Did listeners in all three locations favour NSs more than NNSs of English? / 57
  - Did listeners in different locations evaluate speakers differently? / 558
  - Did the three groups of listeners evaluate speakers differently on five evaluative dimensions? / 60
  - Did listeners follow similar patterns in their evaluation of each personality trait? / 66
  - Did the gender of the listeners affect their judgements? / 73
  - Is there a correlation amongst personality evaluation scores, accentedness, and comprehensibility ratings? / 75
  - Is there a correlation between evaluations of NNSs for each evaluative dimension and accentedness/comprehensibility ratings? / 76
  - Did correlations between personality judgements and accentedness/ comprehensibility ratings vary amongst three listener groups? / 78
  - Did the three groups of listeners rate ESL speakers differently in terms of accentedness and comprehensibility? / 82
  - Did the perceived ethnic background of speakers influence listeners' evaluations? / 83

Did perception of speakers' ethnic backgrounds influence speakers' evaluations of NNSs depending on the listener groups? / 86

Chapter 4. Discussion and Conclusions / 90
Discussion / 90
Evaluations of NSs vs. NNSs / 90
Listener groups and evaluations of speakers across personality traits / 90
Evaluations by three listener groups in terms of five evaluative dimensions / 90
Evaluations for speaker groups by listener groups on each personality trait question / 94
The gender of the listeners and their evaluations / 95
Correlation amongst personality judgement scores, accentedness, and comprehensibility ratings / 96
Correlations between judgements on each evaluative dimension and accentedness/comprehensibility ratings / 96
Correlations between judgements by each listener group on each evaluative dimension and accentedness/comprehensibility ratings for NNSs / 97
Accentedness and comprehensibility ratings by the three listener groups / 98
Perceived ethnic background and evaluations of NNSs / 99
Perceived ethnic background and evaluations of NNSs by the three groups of listeners / 100
Summary / 102
Conclusions / 102
Factors affecting NSs' evaluations of NNSs / 102
Implications and limitations of the present study / 105

References / 109

Appendices / 116
Appendix A / 116
Appendix B / 117
Appendix C / 120

List of Tables

Table 1. Means for the interaction of language groups and listener groups on overall personality trait evaluations / 59

Table 2. Means for the interaction of speakers' L1 and listener groups for personality dimension / 61

Table 3. Means for the interaction of speakers' L1 and listener groups for solidarity dimension / 62

Table 4. Means for the interaction of speakers' L1 and listener groups for dimension of speech characteristics / 64

Table 5. Means for the interaction of speakers' L1 and listener groups for stereotyping dimension / 65

Table 6. Means of the interaction of speakers' L1 and listener groups for status dimension / 66

Table 7. *F*-values for personality traits that indicated the significant main effect of speakers' L1s / 67

Table 8. Mean evaluation scores of each speaker group for each personality trait / 69

Table 9. The interaction of language groups and listener groups on evaluations for each personality trait / 71

Table 10. Means for the interaction of language groups and listener groups on evaluations for each personality trait / 72

Table 11. Means for the interaction of language groups and listeners' gender / 74

Table 12. Correlation amongst personality evaluations, accent, and comprehensibility ratings for NNSs / 75

Table 13. Correlations between evaluations on personality dimension and accent/ comprehensibility ratings for NNSs / 76

Table 14. Correlations between evaluations on solidarity dimension and accent/ comprehensibility ratings for NNSs / 77

Table 15. Correlations between evaluations on speech characteristics (pleasantness of voices) and accent/comprehensibility ratings for NNSs / 77

Table 16. Correlations between evaluations on stereotyping dimension and accent/ comprehensibility ratings for NNSs / 78

Table 17. Correlations between evaluations on status dimension and accent/ comprehensibility ratings for NNSs / 78

Table 18. Correlations between each listener group's evaluation for personality dimension and accentedness/comprehensibility ratings / 79

Table 19. Correlations between each listener group's evaluation for solidarity dimension and accentedness/comprehensibility ratings / 80

Table 20. Correlations between each listener group's evaluation for speech characteristics dimension (pleasantness of voices) and accentedness/comprehensibility ratings / 80

Table 21. Correlations between each listener group's evaluation for stereotyping dimension and accentedness/comprehensibility ratings / 81

Table 22. Correlations between each listener group's evaluation for status dimension and accentedness/comprehensibility ratings / 81

Table 23. Means for accentedness and comprehensibility ratings by the three listener groups / 82

Table 24. Rank order of evaluations, accentedness, and comprehensibility scores, and perceived ethnic backgrounds and L1s of the ESL speakers by all the listeners / 85

Table 25. Rank order of evaluations, accentedness, and comprehensibility scores, and perceived ethnic backgrounds and L1s of the ESL speakers by the university students in Edmonton / 86

Table 26. Rank order of evaluations, accentedness, and comprehensibility scores, and perceived ethnic backgrounds and L1s of the ESL speakers by the high school students in Vermilion / 87

Table 27. Rank order of evaluations, accentedness, and comprehensibility scores, and perceived ethnic backgrounds and L1s of the ESL speakers by the high school students in Edmonton / 88

List of Figures

Figure 1. Mean evaluation scores for three speaker groups / 58

Figure 2. Interaction of speakers' L1s and listener groups for overall personality trait evaluations / 59

Figure 3. Interaction of speakers' L1s and listener groups for personality dimension / 61

Figure 4. Interaction of speakers' L1s and listener groups for solidarity dimension / 62

Figure 5. Interaction of speakers' L1s and listener groups for speech characteristic dimension / 64

Figure 6. Interaction of speakers' L1s and listener groups for stereotyping dimension / 65

Figure 7. Interaction of speakers' L1s and listener groups for status dimension / 66

Figure 8. Interaction of speakers' L1s and listener groups on reliability judgements / 73

Figure 9. Interaction of speakers' L1s and listener groups on attractiveness judgements / 73

Figure 10. Interaction of language groups and listeners' gender / 74

CHAPTER 1: INTRODUCTION

Background

In this study, I investigate how native speakers (NS) of English from rural and urban areas perceive foreign accented speech, and how they evaluate various characteristics of speakers on the basis of their accents alone. I also examine the relationship between listeners' education level and their assessment of accented speech. Often, native speakers' evaluative reactions towards non-native speakers reflect the attitudes of dominant groups towards subordinate groups. This study is an attempt to determine language attitudes in two Canadian communities that have very different ethnic compositions: Vermilion and Edmonton, Alberta. More importantly, I would like to know what factors are relevant in forming certain language and social attitudes towards other cultural groups.

Ryan and Giles (1982) state:

> In every society the differential power of particular social groups is reflected in language variation and in attitudes toward those variations. Typically, the dominant group promotes its patterns of language use as the model required for social advancement; and use of a lower prestige language, dialect, or accent by minority group members reduces their opportunities for success in the society as a whole. (p. 1)

Thus, listeners' attitudes towards speech with different accents would likewise reflect the listeners' perceptions of the speakers with particular backgrounds that are associated with those accents.

This study was precipitated by some unpleasant experiences I have had since coming to Canada three years ago: for example, a worker at a cafe once attempted to shortchange me; another time a shopkeeper replaced the battery of my watch with a dead battery. I wondered what factors motivated those people to do such things. Is it the way I look, the way I sound, or something else? It is difficult to say that such unscrupulous behaviour could be attributed to racial discrimination; perhaps race had nothing to do with it. However, some instances are easier to recognize than others as clear cases of discrimination. One time, I was trying to find the best deal on an airplane ticket to Japan by phoning several travel agencies. When I tried one particular company, a rather blunt travel agent gave me information about a ticket. Shortly after, a friend of mine, who is a native speaker of English, phoned back and asked exactly the same question. Presumably the same agent to whom I had spoken gave the native speaker very different information from what I was given. People may interpret this differently, but I could not resist thinking that it must have been the way I sounded, since it happened over the phone. These and other similar incidents interested me in the study of social evaluations associated with foreign accents.

The way in which listeners perceive speakers with certain speech styles or accents affects speakers' lives. When listeners are members of dominant groups and the speakers are members of minority groups, it is easy to imagine that the speakers will be at a disadvantage. Thus, I believe that listeners' attitudes towards speakers, especially minority speakers, should continue to be challenged, and I hope that this study will contribute to that process. The present study focuses on the effect of familiarity with ESL

speakers on listeners' perception of foreign accented speech and the speakers. Therefore, I selected an urban area which is relatively racially and ethnically diverse and a rural area which is relatively racially and ethnically homogeneous in order to compare listeners' attitudes towards foreign accented speakers. The present study will also have implications for Canada's present immigration pattern, in which 60% of immigrants settle in the three urban centers of Toronto, Montreal, and Vancouver (Citizenship and Immigration Canada, 1994).

Research questions

The main research questions to be explored in the present study are as follows: 1) Are native speakers of English evaluated favourably by native English listeners, compared to ESL speakers? 2) Do university students and high school students in an urban area, and high school students in a rural area, evaluate non-native speakers of English differently? 3) If there are any differences among these three groups of listeners, then where do the differences come from? Is it education level, urban vs. rural location, or something else? 4) Are evaluations of a speaker's personality related to perceived accentedness and comprehensibility?

Definition of terms

Native speakers of English (NSs): speakers whose first language is English (Canadian English in this study).

Non-native speakers of English (NNSs): speakers whose first language is not English.

English as a second language (ESL) speakers: speakers whose second language is English.

Comprehensibility: the definition of this term varies in the literature. In the present thesis, the term refers to the extent to which listeners perceive speech to be understandable.

Intelligibility: the extent to which utterances are measurably understandable.

Foreign accent: speech characteristics such as pronunciation of segments, stress patterns, and intonation that speakers transfer from their first language to their speech in English. This may also include phonological aspects of a NNS's speech that do not exist in either their first language or their second language.

Accentedness: in the present thesis, this term refers to the extent to which speech is perceived to be different from native Canadian English listeners' perception of Canadian English.

Overview

This chapter has provided a brief explanation of the rationale behind the present research, and definitions of some of the terms used most frequently throughout the thesis.

In the next chapter, I will review some of the relevant research in the area of accent and listeners' attitudes, and discuss its relevance to the present research. Chapter 3 will be a summary of research hypotheses. In Chapter 4, I will begin by describing the procedure of the present research: the stimuli; participants; speakers; and the process of data collection and analyses. I will then report the results of the study. In Chapter 5, I will discuss the results and their implications, and draw conclusions. I will also discuss

some limitations of the study as well as some social, educational, and linguistic implications. In addition, I will make some suggestions for directions for future research.

CHAPTER 2: LITERATURE REVIEW

Foreign accent and issues of intelligibility and comprehensibility

The role that foreign accent plays in ESL instruction, particularly the improvement of ESL speakers' English pronunciation, has been the topic of much debate. Stevick (1978) discusses the role of pronunciation in communication and desirable teaching methods of pronunciation in foreign language learning. He points out both negative and positive sides of acquiring native-like pronunciation. "Good" pronunciation of a target language could offend learners' peer groups, but on the other hand, "poor" pronunciation would result in negative evaluation of the learners' intelligence or school work. For Stevick, the teacher's task is to "provide suitable models," and "to make it easy for the student to find out how his efforts compare with the pronunciation that is taken as the standard for the course" (p. 148). However, a question arises here: how should a teacher decide on suitable models for learners, and how should a standard for a course be determined?

Stevick offers an interesting view of pronunciation learning: he states that it is "only one aspect of a total process, social in nature, which involves the whole learner and not just the speech apparatus or cognitive faculties" (1978, p. 148). Stevick emphasizes emotional and social aspects of learning processes. As an example, he suggests that "[f]or a person whose upbringing and previous social development have left him uncomfortable with Southeast Asians, any success at mimicry of Thai will set up conflicts with the self-image that he has come to depend on" (p. 146). What Stevick suggests is that learners' attitudes towards the cultures and speakers associated with the

language that they learn influence how closely they are willing to approximate the pronunciation of native speakers. In fact, it has been suggested that learners' perceptions of or attitudes towards other cultures and speakers are strongly related to learners' success or failure of language learning (Gardner, 1985).

While researchers such as Stevick (1978) and Gardner (1985) focus on teaching methods and psychological aspects of pronunciation learning, other schools of thought examine phonological features that contribute to foreign accent. For instance, Gilbert (1980) stresses the importance of prosodic features in facilitating pronunciation of the target language. In order to confirm the importance of intonation, she conducted an experiment to test if languages could be identified by intonation alone. The experimenters recorded conversations in Japanese, Cantonese, and English, and treated the recordings so that intonation alone was preserved. Speech samples were played to native speakers of Japanese, Cantonese, and English. The listeners were asked to identify which language was being spoken. The listeners averaged 58% correct identification of all three languages. Gilbert, therefore, concluded that "language recognition is possible using prosodic cues alone, further establishing the importance of intonation" (p. 114). Thus, acquisition of accurate prosodic features in L2 may facilitate improved pronunciation. Also, it may also be important to consider how intonation would affect the intelligibility and comprehensibility of NNSs' speech.

Gilbert (1980) further investigated how recognition of intonation patterns could be facilitated. She conducted three experiments to test specifically the effect of training—active and passive—on learning intonation. Passive listening involves the task

of simply listening to the tape, whereas active listening involves mimicry of intonation using kazoos. Japanese ESL students were tested. When the time between pre- and post-test was relatively short (i.e. one week) and rather intensive training was given (one hour in four 15-minute sessions), the active listening group improved significantly more than the passive listening group. Trained groups improved even with less intensive training. Therefore, Gilbert concluded that mimicry is an effective method for learning intonation, and should be used in a classroom. She also concluded that "it is likely that some form of 'stripped speech' focuses the learners' attention" (p. 116). By focusing on one element at a time. The stage of the learning process at which intonation should be taught may deserve further investigation.

Other features of accent have been identified as important components to improve ESL learners' pronunciation. Esling and Wong (1983) suggest methods to make learners aware of voice quality settings of English as well as of their own L1. Voice quality settings are described by Catford (1964) as "the long-term postures of the larynx, pharynx, tongue, velopharyngeal system and lips, as well as long-term laryngeal configurations reflected in the diverse phonation types" (p. 89). Esling and Wong extend Catford's definition and argue that voice quality settings

> may function linguistically, to characterise the particular language or dialect or social group to which a speaker belongs; or they may function paralinguistically, to signal mood or emotion in conversational contexts; or they may also function extralinguistically to characterise or identify the individual speaker. (p.89)

Thus, voice quality settings may be considered as one of the characterizing features of accent, and they may influence listeners' perception of a particular speaker.

Esling and Wong (1983) suggest that voice quality settings are also relevant to intelligibility and comprehensibility: if the voice quality of a speaker's L1 is different from that of a target language, spoken communication may present some difficulties. In addition, the authors stress another important aspect of voice quality setting—the *irritation* factor. "The students' own native setting may contain features which . . . evoke an unfavourable response from English speakers" (p. 91). The authors also point out that voice quality communicates to some extent the speakers' social background, intelligence, or ability. Thus, voice quality settings appear to be quite relevant to successful cross-cultural communication. Esling and Wong suggest specific teaching methods. In general, they stress the importance of drawing learners' attention to voice quality settings in order to help them analyse the characteristics of voice quality settings of the target language as well as those of their own L1. This study is rather innovative in the sense that it recognises the importance of teaching pronunciation in *contexts*, and it allows some variations rather than strictly postulating "native quality."

Gynan (1985) discusses the factors that influence the comprehensibility of interlanguage to native speakers. He draws attention to "irritation," which is relevant to comprehensibility. "An assumption underlying the study of irritation is that even if nonnative speech is comprehensible, the form of the message may be associated with a negative affective response from the native speaker" (p. 160). Gynan further points out that native speaker response to interlanguage is also a result of evaluation. He refers to

the native speaker's evaluative response to language as a *language attitude*. Gynan attempted to identify error hierarchies with regard to comprehensibility, irritation, and the level of learners' proficiency. He discovered that morphosyntactic factors were more salient than phonological ones in terms of subjective measures. However, the phonological factors appeared to be highly correlated with comprehensibility, especially for beginner's speech, and the more salient beginners' errors were found to be "irritating." Gynan concludes that although morphosyntactic errors are more salient than phonological ones, "comprehensibility is more related to phonological factors" (p. 165). It seems important for ESL learners to acquire a certain level of phonological accuracy. However, it should be stressed that perceived comprehensibility is also a function of "irritation" and evaluation on the NSs' side. On the one hand, it would be useful to identify phonological features that are especially "irritating" to listeners. On the other hand, however, the features that listeners feel to be irritating, and the degree to which they are irritating, may differ from one listener to another. Also, highly intelligible speech may still be regarded as irritating (Munro & Derwing, 1995b; Derwing & Munro, 1997), depending on listeners' attitudes. Thus, in order to facilitate smooth cross-linguistic/cross-cultural communication, a more holistic approach should be taken to improve the pronunciation of ESL learners.

Major (1987) discusses research and theories concerning some aspects of L2 phonological acquisition such as age, L1 interference, developmental processes, style, production, and perception. He points out that no single existing theory seems to be able to account for all learner errors. Major concludes that interactions between the-

aforementioned factors and existing theories have to be closely examined. Some theories seem problematic. One such theory is advocated by Wojcik (1980, cited in Major, 1987), who claims that "foreign accent is similar to a speech impediment; i.e., they both result from the speakers' failure to suppress the appropriate process(es)" (p. 195). A view such as Wojcik's leads to ESL classes that emphasize "accent reduction" or "remediation." However, the assumption that foreign accent equals impediment should be abandoned, because foreign accent is not a speech deficiency, but rather consists of "detectable acoustic differences" (Flege, 1988b). Flege defines important terms that are frequently used in literature that assumes they are common knowledge to readers. Flege defines *native language* as "the first language(s) an individual learns in early childhood," and *foreign language* or *target language* as "any language(s) learned naturalistically or through formal instruction after establishment of the native language" (p. 226). A *native speaker* is defined as "someone speaking her or his native language" and a *non-native speaker* is "someone speaking a foreign language" (p. 227). Flege states that

> *Foreign accent* is a phenomenological experience of listeners that is derived from detectable acoustic (and perhaps visual) differences between native and non-native speakers in the pronunciation of sounds or other speech units. The perception of foreign accent leads to the conscious or unconscious realisation by the listener that the interlocutor is not a fellow native speaker. (p. 229)

An interesting point raised here is that a foreign accent marks its speaker as different. The statement implies that in some cases a foreign accent may lead to some form of exclusion of foreign accented speakers. Flege defines *pronunciation norm* as "the

collective judgement of native speakers concerning how a sound 'ought' to be pronounced" (p. 229), and *phonetic norm* as something that is physically measurable. Pronunciation norms can be assessed on the basis of *acceptability* and *intelligibility* judgements. Acceptability judgements may have greater variety than intelligibility judgements, in that they may reflect the tolerance or the irritation of judges. The notion of acceptability can be problematic, especially when one assumes that members of certain social groups have the agency to accept or reject others. Flege often uses the term *authenticity*, which refers to "compliance with the phonetic norms of L2" (p. 230). "A sound is produced adequately but not authentically when the listener correctly identifies it, but is nonetheless able to determine that it was not produced by another native speaker" (p. 230). As far as intelligibility is concerned, adequacy is more important than authenticity: pronunciation should be adequate if the message is to be understandable, even if it is judged as not authentic.

Flege (1988b) also discusses the social and communicative significance of foreign accents. He recognises the probable negative effect of accents on how an L2 learner is perceived as a person. For instance, Flege cites Kalin and Rayko (1978), who found that NSs of English in their study generally judged NNSs (Italian, Greek, Portuguese, West African, Yugoslav) to be less suitable for high status jobs than NSs, but to be more suitable for low status jobs than NSs. Foreign accents are prone to be detected either consciously or unconsciously. Flege (1984) found that "accent detection (probably unlike the *recognition* of accents) did not depend on prior experience" (cited in Flege, 1988b, p. 233). Thus, Flege suggests that "accent detection is based on perceived *divergences* from

the phonetic information specified in phonetic category prototypes rather than on the perception of specific (non-native) properties in the speech of non-native talkers" (p. 233).

There are several factors that determine perceived accentedness. It is hypothesised that the degree of perceived accent becomes lower as listeners become familiar with an accent. The listeners' attitudes towards speakers also influence perception of accents. For instance, interlocutors tend to be more patient with speakers who are trying to make themselves intelligible. This tendency has an interesting consequence. Flege (1988b) suggests that "the negative effect of (remaining) divergences will actually increase as an L2 learner gains greater proficiency in L2 because native-speaking listener's [sic] perceive him or her to be making less effort to accommodate" (p. 238). According to Gynan's (1985) finding that morphosyntactic errors were salient at an early stage in L2 learning and gradually become less so, it is possible that accent becomes more pronounced as other features of L2 become more advanced. It is also possible that a level of pronunciation accuracy somewhat comparable to the level of proficiency in other linguistic features may be expected of relatively proficient L2 learners. Thus, phonological advancement to the level at which it will not cause low comprehensibility may be important.

Flege (1988b) also discusses the factors that cause accents. It seems consistent among many studies that age of learning is an important factor, and that it overrides the amount of experience in L2. The "critical period" for learning L2 pronunciation appears to occur much earlier than puberty, at five years old or even earlier. Moreover, there is

experimental evidence that suggests (Flege, Munro, & MacKay, 1995) it is very unlikely that L2 speakers will have an undetectable accent if they have acquired their L2 after early childhood.

L1 influence on L2 has also been studied extensively. Flege (1988b) states that "a basic mechanism in L2 speech learning seems to be the maintenance of previously established patterns of articulation for the production of L2 sounds that bear varying degrees of acoustic and articulatory similarity to L1 sounds" (p. 305). Flege assumes that the L2 sounds familiar/similar to those in L1 impede the learning of new sounds, because learners substitute similar L1 sounds for new L2 sounds and never learn the actual L2 sounds. However, it seems important to examine how (in)effective this substitution is in terms of intelligibility. If substitution doesn't impede communication, a small deviation from the phonetic norm of target sounds should not matter.

Flege (1988b) also extensively examined features of accents in terms of voice onset time (VOT) and vowel quality. He found that differences of VOT or vowel length in L1 and L2 can be learned, but L2 speakers may never exactly match the L1 norm. VOT seems quite fragile in the sense that even L1 VOT is affected by L2 learning. Flege goes on to discuss the role of attention and strategies in L2 learning. It has been suggested that L2 learning involves conscious processes (Schmidt, 1990). This hypothesis seems to be somewhat related to the assumption that the development of perceptual ability and production occur hand-in-hand. Thus, if learners are able to listen to phonetic features particular to a TL and hear the difference between their own production and that of a NS, they could ostensibly "correct" themselves.

I have so far discussed the nature of accent, what determines the presence of accent, and L2 pronunciation. While past research seems to focus largely on issues that have to do with L2 learners, Flege and Fletcher (1992) also discuss listener related issues. They conducted four experiments to explore the influence of listener-talker related factors on the perceived degree of foreign accent.

In their first experiment, Flege and Fletcher (1992) examined the effect of age of learning (AOL) and the role the amount of L2 experience has on adults' pronunciation. Talkers consisted of 20 native speakers of English, 10 native speakers of Spanish who started learning English at the age of 5-6 years ("early learners"), and 20 Spanish speakers who started learning English as adults ("late learners"). Late learners, who had lived in the US for less than a year ("inexperienced") were compared with late learners who had lived there for more than 7 years ("experienced"). The early learners' pronunciation was rated almost as high as that of native speakers of English. Both experienced and inexperienced late learners received significantly lower scores than the early learners. Flege and Fletcher also found that the length of English instruction and the length of stay in the US correlated with degree of accent. Flege and Fletcher suggested that "late learners' pronunciation of English may improve as a function of length of residence in the United States" (p. 377).

In their second experiment, Flege and Fletcher (1992) tested whether "range effects" influence native speakers' judgements of foreign accent. Range effects refer to the phenomenon of NSs judging NNSs' speech to be more strongly accented when a larger proportion of NSs are included in a set of utterances. If range effects exist, they

would lend support to Long's (1990) claim that two factors may influence whether a speaker is judged as native or non-native. One factor has to do with the listeners' "tolerance" for pronunciation variations. "Listeners from a large metropolitan area who have been exposed to many varieties of speech . . . may be more reluctant to classify a talker as non-native than listeners without such an experience of linguistic diversity" (p. 378). Flege's and Fletcher's talkers were native speakers of Spanish who were drawn from the first experiment, and Chinese speakers from Flege's (1988a) study. The results showed that the same speakers received higher scores than in the previous experiment where native speakers of English were included. Thus, Flege and Fletcher conclude that range effects influence foreign accent judgements. This is an interesting finding, because it indicates that "accentedness" is partly a relative judgement.

In their third experiment, Flege and Fletcher (1992) tested the reliability of foreign accent judgements. Listeners rated the speech of native Chinese speakers and native Spanish speakers. They rated the same speech twice with an intervening five minute pause. This experiment had a second session in which listeners were assigned to an identification task in which they were given feedback concerning correct identification. Intra-rater reliability was found to be high. It was found that the listeners' ability to identify the speakers' L1 background did not improve much over the trials. However, the fact that scores decreased in the second session led Flege and Fletcher to suggest that "the listeners became more aware of divergences in the sentences from English phonetic norms during session 2 without becoming more tolerant" (p. 382).

In the final experiment, the two early learner groups, native speakers of Spanish and of Chinese, were compared, and their speech was presented along with the speech of native English speakers. The native speakers of English and the Spanish early learners received significantly higher scores than the Chinese early learners. Note that Spanish speakers started learning English at the age of 5-6, whereas Chinese speakers came to the US at an average age of 7.6 years.

The most important finding in this study is that AOL plays a critical role in acquisition of L2 pronunciation. The "critical period" appears to be much earlier (5-6 years old) than generally believed. In a study by Flege, Munro, and MacKay (1995), an average of 59% of variance in the accentedness ratings was accounted for by AOL. They also estimated that the AOL for the first emergence of foreign accent is somewhere between three to 11 years of age. In their study, very few ESL speakers who started learning English after 15 years of age were judged to fall within the NS range. Another interesting finding is the influence of the "range effect" on accent ratings; that is, whether one's speech is judged to be accented or not largely depends on the proportion of NNSs amongst NSs. The range effect may also apply to social settings as well, and may be related to the familiarity effect. In other words, where the population of NNSs is substantial, and thus its proportion to NSs is large, people may not judge accented speech harshly.

Some studies suggest that foreign accent does not necessarily impede communication. Munro and Derwing (1995a) investigated the relationships amongst accentedness, comprehensibility, and intelligibility of the speech produced by ESL

speakers. Eighteen native speakers of English listened to extemporaneous English speech produced by 10 NSs of Mandarin and two NSs of English. Listeners then transcribed the utterances (as an intelligibility measure) and rated the degree of accent and comprehensibility of the utterances on 9-point scales. The researchers found that the degree to which perceived comprehensibility and accent are related showed considerable listener variability, while comprehensibility ratings were correlated to a greater degree with intelligibility. They examined a subset of the utterances that were 100% intelligible, and compared the comprehensibility and accent ratings for those utterances. The researchers found that the relationship between perceived intelligibility and accent showed considerable listener variability. Many utterances that were perfectly intelligible were perceived to be moderately or even heavily accented. Thus, although Munro and Derwing point out that unintelligible utterances were always rated as heavily accented and difficult to understand, they concluded that a strong foreign accent does not necessarily reduce intelligibility or comprehensibility in every case.

Although it is not clear what criteria the listeners used to judge accentedness of the speech, "phonemic errors, phonetic errors, and goodness of intonation" (Munro and Derwing, 1995a, p. 91) seem to have played a role. The range of pronunciation that is accepted by listeners may also differ. It is also interesting to note that one of the NSs of English received lower comprehensibility ratings than many other NNSs. This seems to indicate that comprehensibility may also be determined by factors other than accent. Munro and Derwing (1995a) conclude that "if comprehensibility and intelligibility are accepted as the most important goals of instruction in pronunciation, then the degree to

which a particular speaker's speech is accented should be of minor concern, and instruction should not focus on global accent reduction, but only on those aspects of the learner's speech that appear to interfere with listeners' understanding" (p. 93).

In a related study, Munro and Derwing (1995b) explored the relationship between intelligibility, comprehensibility, and foreign accent. Talkers were native speakers of Mandarin. Listeners who were NSs were assigned to do a sentence verification task. In this study, response latency data indicated that the utterances of Mandarin speakers took longer to verify than the utterances of NSs. Thus, Munro and Derwing suggested that although all the utterances were intelligible, the longer processing time was due to the presence of accent in the utterances. In other words, accented speech required extra processing time. Also, the utterances that received lower comprehensibility ratings took longer to process than those with higher comprehensibility ratings. Thus, Munro and Derwing suggested that listeners may judge the utterances that take longer to process to be less comprehensible, even though they ultimately understand the message. They also suggested that the degree of accentedness is not a definite indicator of processing time. On the other hand, significantly more utterances produced by NSs were correctly verified than the utterances produced by NNSs. Thus, it seems that foreign accent may have reduced the intelligibility of some of the utterances. However, Munro and Derwing found that although processing times were related to comprehensibility ratings, they were not related to accent ratings. Therefore, the researchers conclude that although having a foreign accent has some costs, even a heavy accent is not "an inevitable barrier to communication" (p. 302). They suggest that

> the notion that foreign accent 'reduction' automatically entails improved comprehensibility is quite incorrect. If improved communicative competence is a primary goal in second language teaching, then attention ought to be directed to those specific aspects of the learner's speech that most affect comprehensibility and intelligibility and not to those aspects simply associated with accent. (pp. 302-303)

These two studies by Munro and Derwing (1995a; 1995b) have suggested that even though accent can certainly reduce intelligibility, it does not always do so. Thus the presence of accent does not always impede communication. In light of these findings, then, an immediate association of foreign accent reduction and increased communicative ability of ESL learners may be partially unjustified. As Munro and Derwing (1995b) point out, judgement of comprehensibility of foreign accented speech by NSs was affected by the increased processing time due to the presence of foreign accents. The researchers speculated that although the listeners were ultimately able to understand the utterances, the fact that they had to work hard in order to understand might have caused irritation.

In a more extensive study of the relationship between accent, comprehensibility, and intelligibility, Derwing and Munro (1997) found similar results. In that study, talkers were native speakers of Cantonese, Japanese, Polish, and Spanish. It appeared that accent ratings were harsher than comprehensibility ratings. Although they found significant correlation scores between perceived comprehensibility ratings and intelligibility scores, overall the utterances were highly intelligible. The researchers also found that

comprehensibility ratings were harsher than intelligibility scores. They concluded that listeners may perceive accented speech as difficult to understand due to increased processing time or effort, even though the speech is intelligible.

Derwing and Munro (1997) also found that the degree of listeners' familiarity with speakers of Cantonese, Japanese, Polish and Spanish appeared to be a predictor of successful identification of speakers' L1s. Moreover, identification of speakers' L1s was moderately correlated with intelligibility scores. The researchers therefore suggested that there is a relationship between intelligibility and familiarity with accents. Gass and Varonis (1984) found that familiarity with topic, NNS speech, a particular accent, and a particular speaker facilitated comprehension of accented speech. Thus, the utterances that are related to a previously presented text and are read by the same speaker as the one who read the initial text were most comprehensible.

If familiarity with particular accents does indeed facilitate actual intelligibility of accented speech, then an effort towards increased intelligibility of accented speech could presumably be made by NS listeners as well. As Munro and Derwing (1995a) point out, the presence of foreign accent in speech does not always cause unintelligibility. Thus, other factors should also be taken into consideration in order to improve intelligibility. For instance, discourse factors such as topic familiarity or shared information may also contribute to increased intelligibility of NNSs' speech (see Gass & Varonis, 1984).

World Englishes and their intelligibility in an international context

As reviewed above, a goal of L2 pronunciation learning has aimed roughly either at native-like accuracy or sufficient accuracy for communication. However, since there

are many varieties of English even on the North American continent, which variety should be an ideal model and whose communication should be facilitated are interesting questions and rather sensitive issues: acknowledging one variety leads to discounting other varieties. In this section, I will review some studies and views on varieties of English, and the question of model in relation to the issue of intelligibility world-wide.

Prator (1968) claimed that standard English pronunciation (British English, RP in particular, in his sense) is the model that should be mastered by English as a foreign language (EFL) learners. He criticized Britain for being too generous with regard to varieties of English in places where English is not the native language of the inhabitants. He stated that "the heretical tenet I feel I must take exception to is the idea that it is best, in a country where English is not spoken natively but is widely used as the medium of instruction, to set up the local variety of English as the ultimate model to be imitated by those learning the language" (p. 11). He criticizes "Americans" for giving every recognition and encouragement to "second-language" varieties of English that practically "no one speaks natively." His criticism of US leniency is ironic in light of the considerable body of research documenting discrimination based on second-language varieties of English in the US (e.g. Matsuda, 1991; Sato, 1991; Lippi-Green, 1997).

Prator's criticisms are grounded on the assumption that British English is "the mother-tongue," and he regards other varieties of English elsewhere as "second-language varieties." He claims that the mother-tongue varieties of English are ideal for international communication, because second-language varieties are not intelligible.

Prator states that any "abnormality of speech" can lead to unintelligibility, and therefore even a little deviation (e.g. a foreign accent) should not be permitted.

In an attempt to support his claim, Prator (1968) draws an example based on his experience with a student from India. Prator claims that "the most unintelligible educated variety is Indian English. . . . It is hard to doubt that there is a direct connection between these conclusions and the fact that the doctrine of local models of English is championed more often and more vehemently in India than anywhere else" (p. 27). Thus, he suggests that establishment of local varieties of English at the cost of an instructional standard for TESL is not desirable.

In response to Prator's stance, Kachru (1976) argues for the establishment of local varieties of English. He claims that the function of English in Third World contexts such as India and Africa is not a means to introduce British or American culture, but "to teach and maintain the indigenous patterns of life and culture, to provide a link in culturally and linguistically pluralistic societies, and to maintain a continuity and uniformity in educational, administrative and legal systems" (p. 35). His claim that English can integrate varieties of cultural groups has a crucial implication for the question of intelligibility: namely, intelligible to whom?

Prator (1968) assumes that the primary goal of English use is to interact with British or Americans, but Kachru (1976) suggests that it is not necessarily the case; intelligibility to British, American, or other "native speakers" of English is unnecessary in many instances. Linguistic parameters should be set for social contexts in a speech community, and thus a model does not have to be RP or standard American English.

Kachru writes, "Let the model be educated Indian English. A little effort on the part of the native speakers to understand Indians is as important as a little effort on the part of Indians to make themselves understood by those who use English as their first language" (1976, p. 47). Although I agree with Kachru, I think his emphasis on "*educated* Indian English" is limiting in itself in the sense that it privileges the speech of those who have the social status needed to gain access to "educated" varieties. Thus, it does not seem desirable to overemphasize an "educated" variety, not only in an Indian context, but in other contexts as well. Varieties within a particular speech community should also be respected.

Kachru (1976) states that native speakers of English should abandon the attitude of linguistic chauvinism and develop linguistic tolerance, which would have a desirable impact on various cultures and language users. He further states that "[m]y main aim is to question the bases of the linguistic attitude which one encounters in the English speaking world toward the transplanted varieties of English which have developed in Africa, South Asia and other parts of the world" (1976, p. 49).

Smith and Rafiqzad (1979) tested if non-native varieties of "educated" English are intelligible to listeners of various national backgrounds. Talkers were educated people selected from six countries: Hong Kong, India, Japan, Korea, Malaysia, Nepal, the Philippines, Sri Lanka, and the United States. Taped speech by those talkers was sent to Asia, and data were collected locally. Intelligibility was measured by a cloze procedure test, and a listening comprehension questionnaire was prepared to test understanding. Intelligibility, difficulty of passages, and understanding were compared among talkers

from each country. The results showed that talkers from the US and HK were least intelligible, and the rest were highly intelligible across listeners from Asian countries. Thus, Smith and Rafiqzad conclude that there is no reason to insist on a native speaker to be the model in English classrooms. This was an innovative study that directly dealt with the question of mutual intelligibility of Englishes. The results actually proved that a so-called "native variety" of English (Prator, 1968) does not necessarily contribute to international communication.

Smith (1992) further investigated whether or not different varieties of English are intelligible to one another. He also examined the effects of English proficiency, and familiarity with topic and speech varieties, on intelligibility (word/utterance recognition), comprehensibility (word/utterance meaning), and interpretability (meaning behind word/utterance). Smith tape-recorded English produced by individual speakers from China, India, Indonesia, Japan, Papua New Guinea, the Philippines, Taiwan, the UK, and the US, and played those recordings to three groups of participants. Group 1 of the participants consisted of 10 Japanese speakers of English whose TOEFL scores ranged from 375 to 600. They were only familiar with speech varieties or forms of address of Japanese, American, and British speakers. Group 2 consisted of 10 native speakers of American English, who were not very familiar with varieties of speech and the address forms of countries other than those of the US. Group 3 was a mix of speakers with various backgrounds: one native speaker (from the US) and eight non-native speakers (one each from Burma, China, Indonesia, Japan, Korea, the Philippines, and Thailand).

They were all fluent in English, and were familiar with several varieties of English and the address forms. The test materials were tape-recorded conversations.

The results showed that all the conversations were highly intelligible to the listeners. Also, the participants in Group 3 were best able to interpret the conversations correctly. They also had the greatest confidence in their ability to understand the conversations. Interestingly, the native speakers were not able to identify American speakers as well as the participants in Group 1 or Group 3.

While most of the speakers were perceived to be well-educated, 10% of the non-native speakers of English thought that the speaker from India was not well-educated, and 10% of the native speakers of English perceived the speakers from Papua New Guinea and Indonesia to be not well-educated. This is an interesting result, considering that 60% of the native speakers of English thought the speaker from Papua New Guinea was a native speaker of English. There is no indication as to whether those who thought that the speaker from Papua New Guinea was not well-educated were those who thought that the speaker was a native speaker of English. The listeners who judged some of the NNSs to be not well-educated may have based their judgements on linguistically associated stereotypes.

Most of the listeners, except the mixed participant group, thought that all the speakers used standard English, with the exception of speakers from India and Japan. Thirty three percent of the mixed listener group thought that the speaker from the US used non-standard English. Thus, Smith suggests that "non-native English speakers need not be indistinguishable from native speakers in order to be judged as using Standard

English" (p. 86). He further claims that "it is possible for Standard English to be spoken with many different accents" and "this is one of the very positive results of the vast spread of English across the globe" (p. 88). It may be also possible, though, that "standardness" and "nativeness" are understood differently. Alternatively, one could suggest that there is no one standard English, but multiple standard Englishes with different phonology, syntax, and so forth.

Smith (1992) concludes that the language proficiency of the listeners affects intelligibility and comprehensibility. He states that "being a native speaker does not seem to be as important as being fluent in English and familiar with several different national varieties. . . . the increasing number of varieties of English need not increase the problems of understanding across cultures, if users of English develop some familiarity with them" (p. 88). This claim seems to be more progressive than asking NSs to develop, in Kachru's (1976) words, "linguistic tolerance." Tolerance may not be a solution, because one can tolerate a variety and still retain a negative attitude towards it. Understanding by becoming familiar with linguistic varieties should be a more desirable goal.

Van der Walt (1995) also challenges the commonly held assumption that British English should be taught as a model. She supports the idea of accepting and teaching local varieties of English. Van der Walt mainly discusses three issues: the idea of 'world Englishes' and its significance in a South African context, studies of intelligibility, and standardisation. She criticizes the fact that British English is assumed to be the only appropriate model in South Africa. This assumption leads to stigmatisation of local

varieties of English as "wrong" or "incorrect." She implicitly suggests that there should be a distinction between "fossilised errors" and "a feature of a specific variety of English" (p. 7). In other words, some features that differ from British varieties of English may simply characterize a certain variety of English and may not necessarily be errors.

The importance of Van der Walt's paper is that fundamental but often neglected issues are addressed. The notion of "intelligibility" and both past and ongoing studies of intelligibility comprise one such issue. Nelson (1982, p. 60, as cited in van der Walt, 1995, p. 8) points out that "studies attempting to empirically determine the intelligibility of communication between native and non-native speakers focused on phonological features primarily, in situations where contextual clues were limited." Van der Walt suggests that "intelligibility should ideally be tested in authentically produced and perceived discourse **above** sentence level" (p. 10). As well, it seems to me that intelligibility can be determined by various aspects of communicative strategies as well. Varonis and Gass (1982) also suggested that comprehensibility is affected by the interaction of many factors such as grammar, familiarity, fluency, and social conditions.

Van der Walt (1995) points out the fact that "existing studies tend to measure intelligibility against a specified standard" (p. 8), usually American or British varieties of English. In the majority of studies, "native speakers" judge "non-native speakers" of a particular language, without considering who falls into which category, and why. She emphasises that standardisation of any particular variety of language should be considered in relation to the functional use of the varieties in the context of their speech communities. She also points out the importance of destigmatising local varieties in

comparison with Western varieties of English. As Kachru (1976) argued, where English is a means of communication in a culturally and linguistically pluralistic speech community, there is no reason to enforce British or American English. A local variety of English is a sufficient and a logical choice.

Accent and discrimination

Conflicts generated by language attitudes of members in a speech community towards certain varieties of English can be exemplified by the case of Hawaiian Creole English (HCE) in Hawaii. Although Sato (1991) admitted that negative attitudes toward HCE exist, she suggested that there is increasing support for HCE as well. She illustrated this point by discussing public opposition to a policy that was formulated by Hawaii's Board of Education (BOE). The policy stated that "Standard English [would] be the mode of oral communication for students and staff in the classroom setting and all other school related settings except when the objectives cover[ed] native Hawaiian or foreign language instruction and practice" (p. 653). Some members of the public argued that HCE was a vital aspect of local identity. More interestingly, the responses to the BOE's policy revealed a clear case of class differences in language attitudes. In an informal survey of students at public and private high schools, only 26% of the private school students felt that HCE use should be allowed in school, while 54% of the public school students felt so (Verplogen, 1988, cited in Sato, 1991, p. 654). Sato states that "the survey's results seem to reflect general social class and rural-urban differences, with the working class students attending rural public schools showing much stronger loyalty to HCE than the urban private school students from middle and upper-income families" (p.

654). The possible relationship between language attitudes and language users' backgrounds, rural versus urban in particular, will be examined in the present study.

Sato (1991) points out that "questions were raised concerning the inherently political definition of standard English" (p. 657). This is an important question in ESL, especially when one considers what to teach whom, and why. "Standardness" is relative, and is determined in reference to the status of each language variety. For instance, as Sato points out, standard Hawaiian English is not standard in relation to a Mainland variety of English, although the former is a mainstream means of communication in Hawaii.

Matsuda (1991) argues for linguistic pluralism and elimination of discrimination based on accents. She focuses her discussion on the US antidiscrimination law Title VII and its significance in various court cases in the past, and she searches for an application of it towards justice. Matsuda first presents and analyzes the significant accent cases that illustrate the paradox of Title VII, which disallows discrimination on the bases of race, national origin, and traits when they are inherent in race and national origin, but allows employers to discriminate on the basis of job ability. Thus, in many accent cases, employers' claims that communication skills are required for a job, and that speakers with foreign accents that impede communication are thus inappropriate for the position, have been found reasonable. However, the paradox here is that accent is associated with a speaker's race or national origin.

In the court cases that Matsuda (1991) reports, the importance of communication skills is emphasized and rationalized without evidence to justify accent-based

discrimination. Matsuda, however, critically examines the notions of communication and communicative ability. Drawing from sociolinguistic studies, she points out the fact that "speakers of the low-status speech variety, by necessity, are able to understand speakers of the high-status variety. Speakers of the high-status variety, on the other hand, frequently report that they cannot understand speakers below them on the speech-status scale" (p. 1352). She argues that tolerance of differences and motivation for understanding are what is really needed for communication, because "comprehension is as much as a function of *attitude* [italics added] as it is of variability" (1991, p. 1362).

It is inevitable that high intelligibility is a requirement for some occupations such as teachers, doctors, air traffic controllers and broadcasters. Thus, fair measurement of intelligibility of a job applicant's speech is in some cases necessary. However, in the cases reported by Matsuda (1991), plaintiffs seem to have had good communicative skills and good intelligibility although they had non-standard accents. In other words, there was no clear evidence that the plaintiffs' accent actually interfered with their job performance. If speakers with accents are not hired because of the kinds of accents they have (as opposed to unintelligible speech), then it would be an incidence of discrimination based on foreign accent, or on the race or national origin that is associated with the accent. The problem may lie with the difficulty of distinguishing "between an *admissible* business judgement based on business necessity or personal preference and *inadmissable* [sic] considerations based on race or national origin" (Lippi-Green, 1997, p. 159). Thus, it is crucial to assess actual intelligibility and clarity of speech in relation to what a job entails.

Matsuda (1991) also discusses the issue of intelligibility and "accent." She argues that intelligibility is relational rather than absolute. That is to say, intelligibility is also determined by the listener. Depending on who is listening, an accent could help or hurt communication. When listeners are motivated to understand their interlocutors, intelligibility becomes higher than when listeners are lacking such motivation. Thus, comprehension adjustments should be fairly easy for motivated listeners. In terms of the notion of "accent," Matsuda puts forward the view that accent is socially constructed, and the "standard" is a contextualized notion rather than a generic linguistic property of a language variety. Matsuda strongly supports linguistic pluralism, and states that it represents a generous and tolerant self that marvels at "difference" (p. 1387). She argues against standardization and linguistic intolerance, and argues that "holding people in a nation as radically diverse in accents as ours [USA] to one standard of pronunciation is a declaration that this is a nation of one voice" (p. 1375). The exclusion and repression of certain accents are justified by the inherent superiority, efficiency, universality, and unifying effect of the "standard accent." However, those justifications disguise "an exercise in power" (p. 1395). Matsuda emphasizes that assumptions such as the superiority of a standard accent are imposed in order to rationalize discrimination on account of accents.

From a legal standpoint, Matsuda (1991) suggests that law can potentially be practised for justice in accent cases. Matsuda suggests that, in accent cases, courts should consider points such as 1) the level of communication required for the job, 2) whether the job applicants' speech is fairly evaluated, 3) the intelligibility of applicants to relevant,

nonprejudiced listeners, and 4) reasonable accommodations for the job and limitations in intelligibility. Matsuda finally expresses her sincere wish that the many voices of America be heard.

Language policies of governments also have an impact on the lives of speakers of minority languages. Hernández-Chávez (1994) gives an historical overview of language policies in the US. The overview makes it clear that language policies in the US—either an English-only policy or a partial admission of non-English languages—have been laid out for the benefit of the Anglo-American population. Even when minority languages are accepted, the acceptance is often motivated by administrators' desire for convenience and not for the advantage of minority groups. For instance, Hernández-Chávez comments on the limitations of linguistic civil rights and argues that

> non-English languages are used officially only with monolinguals (or near monolinguals) and only as a compensatory mechanism, not as a language right. They function both to ease administrative burdens and, ironically, to acculturate members of ethnic minority groups into the bureaucratic system. In this way, minority languages and cultures are undermined at the same time that they are used to gain support among minorities for the programs and to mute their opposition to governmental language policies. (1994, p. 153)

Historically, English-only movements or policies have been tied with nationalism, which in turn is affected by economic depression, war, international conflicts with other countries and so forth. The language policies that recognise only English have had an impact on political, economic, and educational systems, and, in the author's words, have

led to "cultural genocide." Cultural genocide has taken different forms, but the most prevalent one is to attempt complete assimilation of minority groups to the dominant Anglo-American culture. Hernández-Chávez (1994) critically views a notion of "integration" that is usually assumed to be encouraged for the newcomers: " 'Integration' into the dominant society is seen as a proper objective only insofar as this means the cultural adaptation of the minority to the norms of the majority rather than the full and equal participation by all groups. . . . A more cynical analysis might conclude that the true goal is to maintain a racially based system of power and control and of unequal access to resources" (p. 158).

Integration into mainstream culture may be desired by minorities as well, and they may have a strong desire to replace their accents with a standard accent, perhaps in an attempt to gain upward mobility, or for other various reasons. Lippi-Green (1997) however calls it "the seduction of perfect English" (p. 228). "The seduction of perfect English, of belonging absolutely to the mainstream culture of choice, is one that is hard to resist" (Lippi-Green, p. 228) for many ESL speakers. To Lippi-Green, such consent by ESL speakers takes part in a language subordination process: "First, one person or group must want to make another person believe that their language—and hence their social allegiances and priorities—are inferior. Second, that targeted person or group must become complicit in the process" (p. 242).

Wiley and Lukes (1996) examine English-only and standard English ideologies in the US and their influences on language planning and policy that involve English instruction for immigrants and speakers of "non-standard" varieties of English. The

authors especially call attention to the structure and role of language assessment. The underlying assumption of such course offerings as "Basic English writing skills" is that a deficiency in standard English should be "corrected" or "remedied." The authors point out that this kind of course generally carries a negative connotation, and often assumes that the students who enrol are non-native speakers of English. Moreover, students are assigned to those courses on the basis of their scores in English tests, and their L1s are never taken into consideration.

Existing language assessment tests assume standard language as a norm, which is based on a literacy tradition. Thus, language tests measure certain aspects of language proficiency that filter out those who do not have the same tradition. Wiley and Lukes (1996) argue that "assessments that measure language proficiency solely in standard English and do not take into account L1 proficiency have led to results that have been inappropriately interpreted as indicating that language minorities are less intelligent and need remedial or special education courses" (p. 529).

This is an important article, one that focuses on language assessment and explicitly talks about its potentially problematic role in the reproduction of inequalities. As has been discussed, gatekeeping mechanisms are also relevant to accent-based cases. To what extent phonological varieties cause actual unintelligibility for all language users is often unclear. Lippi-Green (1997) comments on the role of mass media in standard English ideologies, and states:

> The need for an approach to language which will minimize the technical problems of broadcasting has turned into an arena for who has a right to make decisions—

and enforce them—about how English should be spoken, and who deserves to be heard. (p. 139)

Problems concerning language assessment may partly have to do with who should be assessing language proficiency and on what basis. It seems important to make sure that language assessment is fair and reasonable with a clearly defined purpose.

ESL and linguistic/ethnic minorities

I have discussed the complex relationships between accent, varieties of English, intelligibility and speech communities. What then constitutes desirable ESL?

Leather (1983) reviews some existing studies and discusses "a rationale" for L2 pronunciation teaching. In terms of pronunciation goals, Leather suggests that a near-native accent is not a necessary goal for learners, but a reasonable goal should be to become "'comfortably intelligible' (Abercrombie, 1963) and to sound socially acceptable" (p. 198). He also suggests that acceptability of non-native speech is related to the degree of accent and what L2 variety the speech most approximates. Leather claims that the pronunciation goals in learning should be considered in the context of the L2 program as a whole.

Leather (1983) raises some important questions. He points out that "there is no consensus on what the observable correlates of 'good pronunciation' might be" (p.205). In other words, judgements tend to vary from one listener to another. Recall Major's (1987) and Flege's and Fletcher's (1992) studies which suggest that there are many factors that influence listeners' judgements of ESL speakers' pronunciation.

While linguistic rights of minority speakers should be protected, some researchers suggest that it is a reality that not having access to a "mainstream" language variety tends to limit employment or educational opportunities. Thus, it is important to give minority speakers full access to a "standard" variety, as additive bidialectalism (Sato, 1989) and to "empower" minority speakers (Peirce, 1989).

Peirce (1989) challenges the commonly accepted notion of communicative competence as a goal of teaching English and proposes a pedagogy of possibility. Communicative competence means what is appropriate within a certain discourse in a given community, which includes sociolinguistic rules that are unquestioningly accepted by speakers. Discourses in poststructuralist theory, on which Peirce bases her arguments, are "the complexes of signs and practices that organize social existence and social reproduction" (p. 404), and have "cultural and political corollaries and are implicated in the way we perceive ourselves and our role in society" (p. 405).

Peirce (1989) argues that English can be used to challenge the conditions on which sociolinguistic rules are based. The sociolinguistic rules refer to "appropriate" usage of a language. For example, in some communities in South Africa, it is appropriate for black people to call a white male supervisor *master*. Peirce also argues that teaching is a political process that takes part in social reproduction. For these reasons, the discourse of language teaching—English language in particular in this context—should be re-examined. While teaching English reinforces the reproduction of social inequalities, it can also expose those inequalities, help learners seek their possibilities, and "empower" (Simon, 1987, cited in Peirce, 1989, p. 408) the learners. Empowering

learners means enabling people who have been marginalised in a community to speak and fully participate in a community.

Peirce (1989) draws examples from "People's English" and a comic in South Africa. People's English was proposed at a national conference to establish curricula or syllabi that would support people's power and participation in people's education. It was intended to be distinguished not from British English or American English, but from Apartheid English. The aims of People's English were to inform students of the evil nature of apartheid, to make students "think and speak in nonracist, nonsexist, and nonelitist ways" (p. 411), and to enable students to free themselves from oppression. People's English redefined language competence, which includes "an understanding of language as socially and historically constructed, but at the same time open to dispute" (p. 412).

A comic book was published as a pedagogical tool to promote People's English. The comic's content was organised in such a way that it facilitated the development of critical thinking and reading and writing skills. The comic, as a form of popular culture rather than traditional and conventional British literature, was accessible to a wide audience. The utilisation of popular culture thus worked to "incorporate aspects of students' lived culture into pedagogical work without depicting the students as exotic or marginal, as an 'other' within the dominant hegemonic culture" (p. 416).

In response to Peirce's (1989) article, Dubois (1990) dismisses the "pedagogy of possibility" and "poststructuralist theory of language" advocated by Peirce by calling them "the same old linguistic determinism" (p. 103) seen in the Sapir-Whorf hypothesis,

and she further claims that People's English is an act of neo-colonialism. She seems to be a little defensive of her own position as an ESL teacher, and argues that her teaching does not determine students' ideas. Peirce (1990), however, responds clearly and points out that teachers' positions in classrooms are never neutral. No matter what they do—affirming, negating, or ignoring students' comments—teachers are committing a political act. Peirce argues that what is important here is to theorize the political role of teachers. She also discusses the validity of poststructuralist theory, and rejects Dubois's view. Peirce explains that in poststructuralist theory, "linguistic communities are perceived to be heterogeneous arenas in which language is implicated in the struggle over meaning, access, and power" (p. 108). In this sense, People's English may be considered an attempt to reconstruct the meaning, and henceforth challenge the power, that has been operating in the construction of meaning of English in South Africa, specifically within the context of apartheid.

Pennycook (1989) similarly argues that "knowledge is socially constructed, represents particular ways of understanding and explaining the world, and since it therefore always reflects the interests of certain individuals or groups, is inevitably inscribed in relationships of power" (p. 612). On the basis of this claim, he criticizes the recent trend in which social scientists claim objective and neutral observations of phenomena. Similarly, Pennycook attempts to invalidate the notion of *method*. He argues that methods are neither neutral nor cohesive. The advancement of "new" methods 1) serves the interests of certain individuals or groups such as academics and/or publishing companies, and 2) has very little relevance to what goes on in classrooms.

Also, a patriarchal understanding of method and teaching serves to maintain inequalities. Moreover, the methods that Western teachers from "developed" countries import into "developing" countries are assumed to be superior to the local ones. The same kind of trend can be observed in English varieties. The varieties, in terms of pronunciation in particular, that are taught internationally tend to be Western varieties; such a trend serves to favour western speakers, but not necessarily local speakers (see also Peirce, 1995).

Pennycook (1989) maintains that method in second language education predominantly serves the interests of white male academics. He argues that we have to understand who is controlling classroom practice and who is teaching—"the state, in concert with capital and a largely male academic body of consultants and developers, intervening at the level of practice into the work of a largely female workforce" (Apple, 1986, pp. 36-37, cited in Pennycook, 1989, p. 610). Pennycook concludes that it is crucial for teachers to know the social and political roles they play, and understand "the social and political implications of the theoretical paradigms that inform our work" (p. 612).

However, teachers or classrooms may be able to serve minority language speakers' interests. Peirce (1995) collected voices of minority ESL learners in her qualitative, longitudinal study of five immigrant women. Those women kept diaries of language learning experiences in their homes, workplaces, and communities over a 12 month period. Peirce and the participants met regularly to discuss their experiences. Some of the journals cited in this paper include clear cases in which "accent" was a target of humiliation and exclusion. Peirce's approach to collect actual narratives of the ESL

learners served to make their voices heard, and she was able to document the lived realities of those learners.

Peirce (1995) advocates the notion of *investment* instead of *motivation*. While instrumental motivation presupposes "a unitary, fixed, and ahistorical language learner who desires access to material resources that are the privilege of target language speakers," the notion of investment "conceives of the language learner as having a complex social identity and multiple desires" (pp. 17-18). Peirce argues that the language learner and the language learning context cannot be separated. The conceptions of an individual in SLA should be re-conceptualized in relation to the social world. In her view, language learners have complex social identities which are subject to change over time.

Peirce (1995) suggests that "how relations of power in the social world affect social interaction between second language learners and target language speakers" (p. 12) is of great importance, and it is crucial to teach learners to be aware of their "right to speak" (p. 18). Peirce discusses the importance of "classroom-based social research" (p. 26) in which language learners actively engage in investigations in communities and interactions with TL speakers. It seems to me that this is an innovative and potentially empowering approach for otherwise marginalised learners. At the same time, perhaps the speakers of TL other than teachers also have to be made aware of SL learners' right to speak.

Formation of personality impression

It has been suggested in psychological theories that listeners judge speakers' personalities on the basis of non-verbal speech characteristics such as voice quality. Kramer (1963) suggested that listeners can judge speakers' emotional shifts and personal characteristics from nonverbal properties such as timbre, inflection, and stress of speakers' voices. In a review of existing studies, Kramer cites Pear (1931), who examined responses to questions about nine readers from over 4000 listeners of British radio. In Pear's study, listeners were able to estimate the age and sex of the speakers easily. Listeners were also able in some cases (an actor and a clergyman) to guess speakers' occupations accurately. Although listeners guessed speakers' occupations incorrectly in other cases, certain errors in guessing a speaker's profession were significantly consistent. Thus, Kramer suggests that "some voices provide a stereotype of a certain occupation even though this is not the actual occupation of this speaker" (p. 408).

Although there are confounding experimental results reported, the majority of studies seem to suggest the existence of a relationship between nonverbal voice properties (e.g. voice quality such as breathy voice, flow and clearness in speech) and judgements of speakers' personality and emotional state. Although most of the studies reviewed in Kramer's paper (1963) were clinically based, the findings of those studies seem to have implications for studies of language attitudes. If certain voice characteristics evoke "vocal stereotypes," then it seems reasonable to assume that foreign accent as a voice characteristic would evoke stereotypes.

How, then, do listeners form stereotypes from voice characteristics? Do they associate an overall impression of the voice with certain occupations or personalities, or do they add or subtract each voice characteristic (in terms of identifying an accent, transfer of L1 acoustic characteristics to L2) to ultimately form an image of the speaker? Brown (1986) suggests that some perceived personality traits are more salient than others, and people tentatively form an overall impression of a person's personality on the basis of those important traits. The characteristics of the salient traits are that they are rather clear in terms of either negative or positive qualities. For instance, "intelligent" and "warm" are clearly positive terms, while "stupid" and "lazy" are clearly negative ones.

Brown (1986) suggests that pieces of information about a person are acquired randomly, but they are stored in memory in a unified fashion. He also claims that social information is more likely to be organized in terms of events, arguments, or ethnic groups, rather than organized in terms of individuals, when the information is not clustered by person. In addition, Brown suggests that organization in terms of individuals is more likely to happen with acquaintances than with strangers, and with a stereotypical combination of traits than with an unexpected combination. Based on Brown's claims, it can be inferred that one is very likely to form an impression of a stranger based on given social information, stereotypes in particular, rather than information about an individual. In fact, social information that is clustered by social categories such as ethnicity, gender, class, or race may in some cases be more salient than individual differences in terms of personality judgements. This assumption is particularly relevant to the present study in

its investigation of the effect of familiarity on personality judgements based on voice cues that presumably provide some social information on the speakers.

Accent and social evaluation

One possible consequence of having a foreign accent is to be perceived negatively because of the stereotypes or prejudices that accent may evoke on the part of a listener. These negative perceptions based on accent can have a negative influence on how speakers are positioned in a speech community, such as Filipino accented speakers in the US (see Matsuda, 1991; Lippi-Green, 1997). The present study investigates how adult native speakers of English perceive foreign accented speech and evaluate its speakers solely on the basis of their accents. The rationale of speech evaluation studies is based on the assumption that "the stereotyped impressions that members of one ethnolinguistic group held of another group could be called forth effectively by speech cues alone" (Lambert, 1967, cited in Brennan & Brennan, 1981, pp. 207-208). Therefore, it is assumed that if listeners are exposed to accented speech, any stereotypes associated with that particular accent will emerge.

Social class and language evaluations

Ryan and Sebastian (1980) investigated the separate or interactive effects of social class and ethnicity on evaluative reactions to speakers. Eighty undergraduate students with either lower-class or middle-class backgrounds rated male speakers of either standard or Spanish-accented English on status, solidarity, stereotype, and speech characteristics, and they also made social distance judgements. The assumption was that "accentedness will act predominantly as a cue to ethnicity whereas the social class

background information will more directly influence assumptions about belief and attitude similarity" (p. 229). In order to examine the effects that speakers' social class have on listeners' evaluations, the experimenters used an experimental group in which the information on speakers' social class backgrounds was given, and a control group in which the information was not presented.

The results indicated that standard speakers were perceived significantly more favourably than accented speakers in terms of all five ratings in the lower-class context. For accented speakers, significantly more positive scores were given under the middle-class guise than the lower-class guise on all but the speech characteristic scales. For standard speakers, however, middle-class speakers were associated with significantly higher status but assigned lower speech ratings. In terms of social distance measure for middle-class speakers, significantly more subjects preferred to enter the most intimate interactions with the speakers of standard English than with the accented speaker. Therefore, Ryan and Sebastian (1980) concluded that the interaction between social class and ethnicity of the speakers suggests that "being *both* a member of a different ethnic group *and* an individual with a lower-class background results in decidedly negative evaluations" (p. 232).

Degree of accentedness and evaluations

Giles (1972) investigated the effects of degree of accent on listeners' evaluations. South Welsh and English college students rated English speakers with various regional accents on pleasantness of the voices, speakers' social status, and communicative aspects.

Giles's study showed that speakers whose accents were perceived to be stronger were evaluated less favourably.

Brennan and Brennan (1981) investigated the relationship between degree of accent in Mexican American speakers' English and evaluative judgements by Mexican American and Anglo American listeners. Judgements were examined in terms of two evaluative dimensions—status and solidarity—using a 7-point rating scale. It was found that speakers with lower degrees of accent received higher status ratings than speakers with higher degrees of accent. However, this trend was not so prominent for solidarity ratings. (Only magnitude estimations of accentedness given by Mexican Americans were significantly correlated with solidarity scores.)

Listeners' reactions towards speech with various accents

A considerable number of studies have been done on listeners' evaluative reactions to foreign accent or linguistic/dialectal variations. One of the earliest studies was done by Lambert (1967) in a Canadian context. He developed a method called the "matched-guise" technique in which bilingual speakers read the same passage twice, once in English and once in Canadian-style French. Listeners were English Canadians (ECs) and French Canadians (FCs). Lambert found that both groups of listeners evaluated EC guises more favourably than FC guises. It is interesting that FC listeners downgraded the speakers in the guise of their own ethnic group. The reason for this reaction is not clear. I can only speculate that minority speakers are well aware of their linguistic status in a society, and such a view might have been reflected in their downgrading of their own kind. In other words, it is possible that the listeners in Lambert's study projected an

acceptance of a class-related standard (Brennan & Brennan, 1981) onto their relatively negative evaluations of their fellow speakers.

Some early studies suggest that the gender of speakers also affects listeners' perception of them. Preston (1963, cited in Lambert, 1972) examined the reactions by ECs and FCs towards female and male speakers of English and Canadian French. He found that the EC listeners, both female and male, rated the female speakers more favourably in their French guises than in their English guises, but the listeners rated the male speakers more favourably in their English guises than in their French guises. In particular, male EC listeners judged that female speakers in French guises were more intelligent, ambitious, self-confident, dependable, courageous and sincere than in their English guises. The effect of the speakers' gender in that study seemed to be so strong that it overrode the language effect. Why listeners favour minority language speakers if they are female but not if they are male requires further investigation.

Ryan and Carranza (1975) investigated reactions to accented speech and standard English speech. They had Mexican Americans, African Americans and Anglo Americans listen to a speech in standard American English and in Mexican American accented English, and give evaluations on status and solidarity dimensions. The study revealed that Mexican American listeners made less status differentiation between accented speakers and standard English speakers than the other two groups.

Nesdale and Rooney (1996) investigated the effect of language accents on children's evaluations and stereotyping. Listeners were 40 10-year-olds and 40 12-year-olds from a relatively monocultural school (monocultural group) and a relatively

multicultural school (multicultural group). Talkers consisted of children who spoke with strong and mild Anglo-Australian, Italo-Australian and Viet-Australian accents. Unlike most other research, Nesdale and Rooney used the "verbal guises" technique (Callan, Gallois, & Forbes, 1983), in which different speakers are matched in terms of a number of personality and linguistic variables. This technique differs from the matched guise technique (Lambert, 1967) in that each speaker speaks with one accent, while the matched guise technique has one speaker speaking in two languages or accents. Each accent was labelled with its ethnic designation for half of the listeners, and unlabelled accents were presented to the rest of the listeners. The listeners evaluated the accented speech on status and solidarity scales and on traits comprising the stereotypes of each group.

Anglo-Australian accents were perceived to have greater status than the other two accents, and Italo-Australian accents were perceived to have greater status than the Viet-Australian accents. Nesdale and Rooney (1996) suggest that this is due to the fact that Italo-Australians are rather well-established in Australian society, whereas Vietnamese people are more recent immigrants, and smaller in number. Mild accents were perceived by the older children, not by younger ones, to have higher status than the strong accents. However, when the accents were labelled, the accent strength effect disappeared. Thus, Nesdale and Rooney suggest that "knowledge of the speaker's ethnic group membership provides information about the speaker's status, which reduces the listener's dependence on accent strength as a basis for differentiating status" (p. 144). There was no significant

difference between the monocultural group and the multicultural group of listeners in terms of status scaling.

Strong accents were attributed greater solidarity than mild accents. The labelled Viet-Australian accent was attributed greater solidarity than the other two labelled accents. The interaction between contact and ethnicity was significant. That is, the multicultural group, who had contact with each of the ethnic groups, attributed more solidarity to the Viet-Australian accent than the other two accents. The difference in solidarity scaling on identified vs. unidentified accents was significant only for the older children from multicultural schools. Nesdale and Rooney concluded that "contact with minority ethnic groups increases the Anglo-Australian majority group's tolerance" at this age range (p. 146). In general, the age factor and identification of accents seem to have played important roles in evaluative reactions. It might be possible that accent per se did not necessarily elicit evaluative reactions; rather, listeners were reacting to ethnic groups rather than to speech. It is also possible that identification of accents by listening to speech is simply a difficult task, especially for children.

Moreover, in Lambert et al.'s study (1966), the bias against speakers of Canadian French by working-class adolescents was less prominent than that of upper-middle-class adolescents. The studies by Lambert et al. (1966) and Nesdale and Rooney (1996) seem to suggest that listeners' age and social class are important factors in their attitudes toward minority language groups. Thus, in the present study, I compared listeners' educational level, age, and experiences.

Summary

In this chapter, I presented some of the extensive research on L2 accent. I began with a discussion of the studies on the nature of accent, and its effect on intelligibility and comprehensibility. I proceeded with a discussion of intelligibility of varieties of Englishes in a global context, and then introduced the studies that documented incidences of discrimination based on accent. Those studies relate to my own and my friends' experiences as accented speakers, as well as to the present study, in the sense that they demonstrated the negative consequences—other than communication breakdown—of having an accent. As a basis for the rationale of my present study, I drew upon a number of psychological studies on personality impression. I then reviewed some of the research on listeners' evaluations of speech based on accents. Language issues that centre around accent are complex, and they entail linguistic, social, and educational consequences. It seems that having an accent could have significant effects on speakers' communicative skills as well as how a speaker is perceived, and judgements based on accent are in turn often influenced by various social factors such as gender, social class, ethnicity, race and age.

CHAPTER 3: EXPERIMENT

Research hypotheses

In the present study, I attempt to investigate the difference in NNSs' reactions towards foreign accented English speech between listeners in a rural area and an urban area. Earlier studies in listeners' reactions towards foreign accented speech have not focused on the potential influence of listeners' experience due to their living environment. Without taking into account contextual differences in listeners' reactions, the attitudinal studies would fail to reach more generalizable conclusions. Thus, the present study casts light on a neglected aspect of listeners' reactions, and specifically documents contextual effects on NNSs' reactions towards foreign accented speech.

In Nesdale's and Rooney's study (1996), the socioeconomic status of the listeners was one of the most prominent factors in determining listeners' attitudes towards foreign accented speakers. Thus, I hypothesize that the socioeconomic status of the listeners will be a factor in my research. Note, however, that due to the difficulty of assessing listeners' socio-economic backgrounds, I will only examine listeners' backgrounds in terms of their parents' education level. I also hypothesize that listeners' educational level and experience abroad may have some effect on the listeners' attitudes. Listeners who have experience interacting with a variety of cultures and people may be more positive towards linguistic varieties than the listeners who do not have such experiences. It is expected that language evaluation will reflect how favourably a variety is viewed, and will affect the evaluation of social groups who are associated with a particular variety. I hypothesize that due to the difference in their experience, listeners in culturally diverse

areas will react to foreign accented speech and its speakers more positively than listeners in relatively homogeneous areas. Thus, listeners' reactions in relatively racially and ethnically diverse Edmonton are expected to be more positive than those in relatively racially and ethnically homogeneous Vermilion. At the same time, it is hypothesized that the responses towards an accent that is associated with a relatively established and non-visible minority group would differ from the responses towards an accent that is associated with new immigrants and/or a visible minority group. I also hypothesize that the age and gender of the listeners will be important factors in evaluative reactions.

Method

In order to test the hypotheses stated above, I tape-recorded the voices of three groups of speakers, including visible and non-visible minority speakers, whose L1 backgrounds varied. I asked listeners who differed in their educational level, experience, and age to respond to questionnaires after listening to tape-recorded utterances. Results were statistically analyzed.

Stimulus text

I prepared a short passage in English with culturally neutral content (see Appendix A). The passage was extracted from an ESL textbook (Cameron & Derwing, 1996), and modified slightly in order to minimize any potential effect on judgements of voices.

Participants

Speakers. The group of 12 speakers (all volunteers) consisted of four native speakers of Cantonese, four native speakers of Canadian English, and four native

speakers of Ukrainian, ranging in age from 20-35 years. In order to eliminate a potential gender variable, all speakers were female. I attempted to balance the native speakers of Cantonese and Ukrainian such that each group had one very heavily accented and one very mildly accented speaker. The remaining speakers were judged to be in the middle range. The initial judgements of speakers' accentedness were made by the author. All but two of the second language speakers were students at the University of Alberta, where the minimum score of TOEFL is 580, and all but one were highly proficient speakers of English. The exception was one of the Ukrainian speakers, who was registered in a high intermediate ESL class. However, she did not have difficulty reading the stimulus text.

Listeners. Grade 11-12 students who were attending high schools in Vermilion and Edmonton, Alberta, and university students who were enrolled in a linguistics course (non-majors) at the University of Alberta in Edmonton, participated voluntarily in the study. The listeners consisted of 69 high school students in Vermilion, 79 high school students in Edmonton, and 54 university students. All the participants in Vermilion were native speakers of English. In both Edmonton settings, there were some speakers whose first language was not English; I eliminated those participants from the analyses for the purpose of the present study. Also, one of the participants in Vermilion was excluded from the analyses due to the unusual nature of her responses. Thus, 68 rural high school students, 60 urban high school students, and 40 university students in Edmonton were included in the analyses.

Out of the listeners in Vermilion, 26% had been to a country other than the US, and 16% had been abroad to a country outside Europe and North America. Six percent of

the listeners in Vermilion had lived abroad more than three months. In Edmonton, 46% of the high school students had been abroad to a country other than the US, and 32% had been to a country outside Europe and North America. Twenty-two percent of the listeners in Edmonton had lived abroad more than three months in a country other than the US, and 19% had lived abroad in a country outside Europe and North America. Sixty-three percent of the university students had been abroad to a country other than the US, and 38% had been abroad to a country outside Europe and North America. Thirty percent of them had lived abroad for more than three months in the same country, all of them in a country other than the US, and 15% of them had lived abroad in a country not in Europe. In general, the listener groups in Edmonton have had more experiences travelling outside Canada, and outside the North American continent in particular, than the high school students in Vermilion.

It was found that 38% of the mothers and 33% of the fathers of the university students have university degrees. Twenty percent of the mothers and 28% of the fathers of the high school students in Vermilion have university degrees. Twenty seven percent of mothers and 32% of the fathers of the high school students in Edmonton have university degrees. In general, a larger percentage of the parents of participants in Edmonton hold university degrees as compared to the parents of participants in Vermilion. The fathers of university students and the fathers of high school students in Edmonton have a comparable level of education, but in general, a larger percentage of the parents of university students have university degrees.

The difference in the level of education of the participants' parents in Edmonton and Vermilion is greater when compared in terms of graduate degrees. Eighteen percent of the mothers and 15% of the fathers of the university students hold Masters or PhD degrees, while only 1% of the mothers and 6% of the fathers of the high school students in Vermilion have a Masters or PhD. In terms of the high school students in Edmonton, 5% of the mothers and 15% of the fathers have post-graduate degrees. Thus, the level of education of the parents of the three groups of listeners differs, especially between the participants in Edmonton and the participants in Vermilion.

Questionnaires. Listeners responded to two questionnaires: the first, Questionnaire A (QA) (see Appendix B), had 25 questions for the study involving university student listeners. The questions asked listeners to judge the speakers' comprehensibility and accentedness, and to evaluate dimensions such as personality traits, status, and solidarity. The questions were selected based on previous studies by Lambert (1967), Ryan and Carranza (1975), and Brennan and Brennan (1981), as well as Likert scales constructed by Dr. Bernard Rochet at the University of Alberta. Some questions on evaluative dimensions were eliminated for the other two studies in high schools on the basis of the results of the university study. Questions that were dropped (starred on QA) had large listener variability and did not indicate clear tendencies of preference for one accent group over another. The evaluative questions required the listeners to make judgements on 7-point scales. The second questionnaire, Questionnaire B (QB), consisted of questions about the listeners' experiences in foreign languages and

travelling, and their educational, linguistic, and ethnic backgrounds as well as other demographic information. (For details, see Appendix C.)

Procedure

I tape recorded each speaker's voice on a separate tape in a sound room using a microphone (Sennheiser MD4120) and a mixer (Shure M267) connected to a Tanderg educational tape recorder (TCR 522). All speakers were given an opportunity to practice reading the stimulus text prior to being recorded. I first dubbed the voice of a male native speaker of English reading the same passage. This was done to ensure that listeners would be familiar with the passage prior to listening to the female voices. I then dubbed 12 stimulus voices onto the same tape with a Sony Stereo Cassette Deck TC-WR735S in a random order following the male voice. Thus, there were in total 13 voices reading the same passage.

In order to avoid a possible effect resulting from a non-native speaker of English and a member of a visible minority conducting an experiment on foreign accent, I arranged for the same Caucasian native speaker of Canadian English to conduct the experiment each time.

Experiments were conducted in three high schools—one in a rural area, and the other two in culturally diverse urban areas—and in a university. One of the experiments was conducted in Vermilion, Alberta, where 3.6% of the total population is Ukrainian and .05% is Chinese. Other experiments were done in Edmonton, Alberta, where 2% of total population is Ukrainian and which has much larger Chinese population (3% of total population) than Vermilion (Statistics Canada, 1991a, 1991b). Experiments involving

high school student listeners were conducted in quiet classrooms, one class at a time. There were about 15 to 20 students in each class, and in every case, teachers remained in the room. The experiment involving university student listeners had all listeners in a single lecture room. The tape was played on a portable stereo tape deck (Sanyo MCD-Z31). Listeners were asked to listen to the 12 female voices and judge their personalities as if they were listening to someone's voice for the first time on the telephone or radio. They were instructed to work on QA as soon as they listened to each speaker's voice, and answer the questions in QB after listening to all 12 voices. First, the male voice was played to familiarize listeners with the content of the passage, and the 12 female voices were played in the following order: 1) a native speaker of English (E), 2) a native speaker of Cantonese (C), 3) a native speaker of Ukrainian (U), 4) C, 5) U, 6) E, 7) E, 8) U, 9) E, 10) C, 11) C, and 12) U. The experimenter waited until everyone finished filling out the questionnaire before moving on to the next voice.

The data were entered in Excel files, and the results of QA were statistically analyzed using Super ANOVA and StatView.

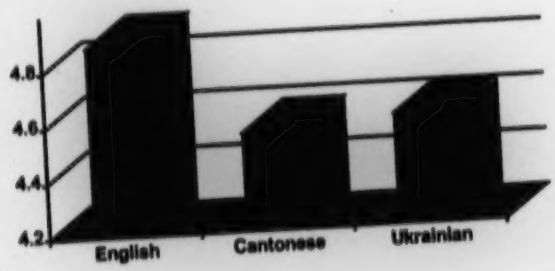
Results

Did listeners in all three locations favour NSs more than NNSs of English?

I conducted a one-way ANOVA with accents as a within factor, for all listeners in high schools in Edmonton and in Vermilion and in the university in Edmonton. The results indicated a significant effect of speakers' accents, $F(2, 292)=30.697$; $p<.0001$. The results of a t-test with Least Squares Means indicated that Cantonese speakers, $p<.001$, and Ukrainian speakers, $p<.001$, received significantly lower evaluations than

English speakers (Note that when I conducted more than three t-tests in a set of data to be compared, I set the significance level as $p<.001$ to avoid increased possibilities of attaining significant results. Otherwise—including Newman-Keuls post hoc tests—the significance level is $p<.05$). The mean evaluation scores for Cantonese speakers and Ukrainian speakers were not significantly different from each other. Thus, across personality traits, all the listeners evaluated NSs more positively than NNSs.

Figure 1. Mean evaluation scores for three speaker groups



Did listeners in different locations evaluate speakers differently?

The listeners' evaluations of the speakers with different accents differed amongst the three listener groups, depending on speakers' L1s. University students in Edmonton did not differentiate their evaluations according to kinds of accent. The results of a two way ANOVA with one within factor (language) and one between factor (listener groups) indicated that the effect of listener group on the overall evaluations was not significant. However, there was a significant interaction effect of language groups and listener groups, $F(4, 288)=6.076$; $p<.0001$. The mean scores for each language group given by

each of the three listener groups are tabulated below (Table 1), and the interaction is plotted in Figure 2.

Table 1.

Means for the interaction of language groups and listener groups on overall personality trait evaluations

	Listener groups		
Language groups	Edmonton University	Vermilion High school	Edmonton High school
English	4.7	4.9	5.0
Cantonese	4.7	4.4	4.6
Ukrainian	4.7	4.6	4.6

Figure 2. Interaction of speakers' L1s and listener groups for overall personality trait evaluations

In terms of English speakers, none of the listener groups' evaluations were significantly different from each other at $p<.001$. The results of an Unpaired Means

Comparison indicated that both the university students, t=4.126; p<.001, and the high school students in Edmonton, t=3.464; p<.001, gave significantly higher evaluations to Cantonese speakers than the high school students in Vermilion. In terms of Ukrainian speakers, the evaluations of the three groups of listeners did not differ significantly.

Unpaired t-tests revealed that the evaluations of the university students and the high school students in Edmonton for the three accent groups did not significantly differ. Also, the evaluations of high school students in Vermilion for English speakers, Cantonese speakers, and Ukrainian speakers were not significantly different at p<.001.

Did the three groups of listeners evaluate speakers differently on five evaluative dimensions?

A series of two-way ANOVAs with speakers' L1 as a within factor and listener groups as a between factor indicated that the three listener groups evaluated speakers on five evaluative dimensions differently depending on the speakers' L1 backgrounds. Questions are clustered into five evaluative dimensions that I determined based on previous research (Brennan & Brennan, 1981; Nesdale & Rooney, 1996; Ryan & Carranza, 1975; Ryan & Sebastian, 1980;). These dimensions are: 1) personality, 2) solidarity, 3) speech characteristics, 4) stereotyping, and 5) status.

Personality dimension: This dimension consists of the questions on the speakers' intelligence, competence, confidence, kindness, and sociability (QA questions 1, 2, 4, 7, and 8). The difference among the three listener groups' evaluations was not significant. The effect of speakers' L1 was significant, $F(2, 328)$=53.734; p<.01. The interaction

effect of speakers' L1 and listener groups was also significant, $F(4, 328)=4.208$; $p<.01$. Means are presented in Table 2.

Table 2.

Means for the interaction of speakers' L1 and listener groups for personality dimension

	English	Cantonese	Ukrainian
Edmonton, univ.	4.9	4.7	4.8
Vermilion, high	5.0	4.4	4.7
Edmonton, high	5.2	4.7	4.7

Figure 3. Interaction of speakers' L1s and listener groups for personality dimension

The results of paired t-tests revealed that the high school students in Vermilion evaluated Cantonese speakers, $t=8.26$; $p<.001$, and Ukrainian speakers, $t=4.444$; $p<.001$, significantly more negatively than English speakers. The high school students in Edmonton also gave significantly more negative evaluations to Cantonese speakers, $t=5.73$; $p<.001$, and Ukrainian speakers, $t=5.01$; $p<.001$, than to English speakers. University students' evaluations did not significantly differ among speaker groups.

61

Solidarity: The questions that are included in this dimension are the speakers' reliability, cooperativeness, interestingness, and attractiveness (QA questions 5, 6, 10, and 12). The main effect of listener groups was not significant. The main effect of speakers' L1 was significant, $F(2, 328)=37.851$; $p<.0001$. A significant interaction effect of speakers' L1 and listener groups was also found, $F(4, 328)=7.041$; $p<.0001$.

Table 3.

Means for the interaction of speakers' L1 and listener groups for solidarity dimension

	English	Cantonese	Ukrainian
Edmonton, univ.	4.7	4.6	4.8
Vermilion, high	4.7	4.1	4.4
Edmonton, high	4.8	4.4	4.4

Figure 4. Interaction of speakers' L1s and listener groups for solidarity dimension

The results of paired t-tests indicated that university students in Edmonton rated Cantonese speakers significantly more negatively than Ukrainian speakers, $t=3.544$; $p<.001$. High school students in Vermilion evaluated Cantonese speakers, $t=6.78$; $p<.001$. High school students in Vermilion evaluated Cantonese speakers, $t=6.78$;

62

$p<.001$, and Ukrainian speakers, $t=4.056$; $p<.001$, significantly more negatively than English speakers. High school students in Edmonton also gave significantly more negative evaluations to Cantonese speakers, $t=4.056$; $p<.001$, and Ukrainian speakers, $t=4.643$; $p<.001$, than to English speakers.

Speech characteristics: This evaluative dimension includes judgements on pleasantness of the voice and comprehensibility (QA questions 20 and 21). The main effect of listener groups, $F(2, 164)=6.82$; $p<.01$, and the main effect of speakers' L1, $F(2,328)=350.852$; $p<.0001$, were both significant. A Newman-Keuls post hoc test revealed that high school students in Vermilion gave significantly lower ratings across speaker groups than the other two groups of listeners. Ratings by university students and high school students in Edmonton were not significantly different. The interaction of listener groups and speakers' L1 was also significant, $F(4, 328)=3.321$; $p<.05$. A series of paired t-tests revealed that high school students in Vermilion rated Cantonese speakers, $t=5.759$; $p<.001$, and Ukrainian speakers, $t=5.522$; $p<.001$, significantly more negatively than English speakers. Likewise, Edmonton high school students evaluated Cantonese speakers, $t=4.039$; $p<.001$, and Ukrainian speakers, $t=3.953$; $p<.001$, significantly more negatively than English speakers.

63

Table 4.

Means for the intraction of speakers' L1 and listener groups for dimension of speech characteristics

	English	Cantonese	Ukrainian
Edmonton, univ	5.4	4.4	4.3
Vermilion, high.	5.3	3.9	3.8
Edmonton, high.	5.6	4.3	4.2

Figure 5. Interacon of speakers' L1s and listener groups for speech characteristic dimension

Stereotyping: Judgements on the speakers' wealthiness and hard-workingness constitute this dimension (QA questions 18 and 19). Only the interaction effect of speakers' L1 anlistener groups was significant, $F(4, 328)=3.65$; $p<.01$. The results of t-tests indicated th none of the pairs were significantly different from each other at $p<.001$.

p<.001.

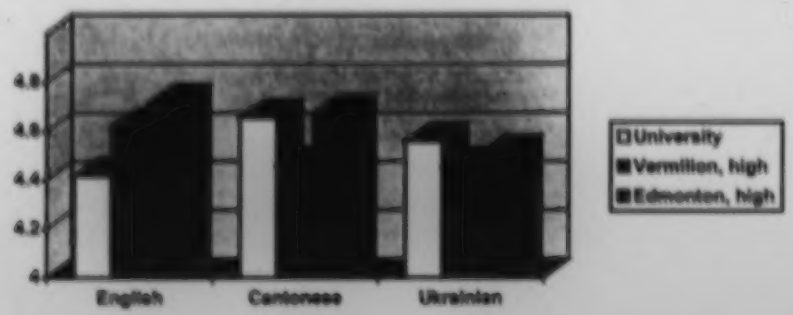
64

Table 5.

Means for the interaction of speakers' L1 and listener groups for stereotyping dimension

	English	Cantonese	Ukrainian
Edmonton, univ.	4.4	4.7	4.6
Vermilion, high.	4.6	4.5	4.5
Edmonton, high.	4.7	4.7	4.5

Figure 6. Interaction of speakers' L1s and listener groups for stereotyping dimension



Status: The question related to this dimension is the speakers' well-educatedness (QA question 17). The main effect of speakers' L1 was significant, $F(2, 328)=12.011$; $p<.0001$. Unpaired t-tests revealed that Ukrainian speakers received significantly lower ratings than English speakers, $p<.0001$. There was a significant interaction effect of speakers' L1 and listener groups, $F(4, 328)=5.38$; $p<.001$. A series of paired t-tests indicated that high school students in Vermilion gave significantly more negative ratings to Cantonese speakers than to English speakers, $t=3.546$; $p<.001$. It was also found that

65

high school students in Edmonton rated Ukrainian speakers significantly more negatively than English speakers for this evaluative dimension, $t=3.928$; $p<.001$.

Table 6.

Means of the interaction of speakers' L1 and listener groups for status dimension

	English	Cantonese	Ukrainian
Edmonton, univ.	4.8	4.9	4.8
Vermilion, high.	4.9	4.6	4.7
Edmonton, high.	5.5	5.2	4.6

Figure 7. Interaction of speakers' L1s and listener groups for status dimension

Did listeners follow similar patterns in their evaluation of each personality trait?

Listeners did not follow similar patterns in evaluating speakers on each personality trait. I found significant main effects of listener groups and language groups, and an interaction effect of language groups and listener groups. In order to examine whether the evaluations given by three groups of listeners for all personality trait questions were of a uniform pattern, I conducted an ANOVA with a one within (language

66

group) and one between (listener groups) factorial design for the evaluation scores given on each personality trait question. The main effect of listener groups was significant only for the evaluations on speakers' perceived interestingness, $F(2, 145)=5.185$; $p<.01$, and attractiveness, $F(2, 144)=4.569$; $p<.05$. A Newman-Keuls post hoc test revealed that for the interestingness judgements, the listeners in Vermilion gave significantly lower ratings across the speakers' L1s than the listener groups in Edmonton. The difference between Edmonton high school students' evaluations and university students' evaluations was not significant. The results of the Newman-Keuls post hoc test for the attractiveness judgements indicated that the university students gave significantly higher ratings than the other listener groups, $p<.05$.

The main effect of speakers' L1s was significant for all personality traits except "kindness". F values for the personality traits that showed the significant main effect, $p<.05$, are tabulated in Table 7.

Table 7.

F-values for personality traits that indicated the significant main effect of speakers' L1s

Personality traits	F	Personality traits	F
competence	37.566	educatedness	9.604
confidence	53.837	sociability	36.107
intelligence	26.019	hard-workingness	4.657
reliability	11.42	interestingness	9.286
attractiveness	36.048	wealthiness	4.153

Note: df=2, 328

Note: df=2, 328

67

I compared the mean evaluation scores for each personality trait given to each language group. The results indicated that for the evaluations in terms of speakers' intelligence, competence, and cooperativeness, Cantonese speakers and Ukrainian speakers received significantly lower scores than English speakers. For the listeners' judgements on speakers' reliability, confidence, sociability, and interestingness, Cantonese speakers received significantly lower scores than either English speakers or Ukrainian speakers. In terms of attractiveness judgements, Cantonese speakers received significantly lower scores than Ukrainian speakers, who in turn received significantly lower scores than English speakers. For educatedness judgements, Ukrainian speakers received significantly lower scores than either Cantonese speakers or English speakers. The scores for Cantonese speakers and English speakers were not significantly different. For the judgements on speakers' wealthiness, English speakers received significantly higher scores than either Cantonese speakers or Ukrainian speakers. The difference between Cantonese speakers and Ukrainian speakers was not significant. For judgements on hard-workingness, overall ratings across the three groups of listeners given to Cantonese speakers were significantly higher than those given to both Ukrainian speakers and English speakers. The mean ratings for Ukrainian speakers and English speakers were not significantly different. The mean scores for each language group in terms of each personality trait are shown in Table 8.

68

Table 8.

Mean evaluation scores of each speaker group for each personality trait

	English	Cantonese	Ukrainian	Mean
intelligent	5.2	4.8	4.8	4.9
competent	5.1	4.7	4.7	4.8
cooperative	5.2	4.9	4.9	5.0
reliable	4.9	4.6	4.7	4.8
confident	5.0	4.2	4.7	4.6
sociable	5.0	4.3	4.6	4.6
interesting	4.4	3.9	4.2	4.2
attractive	4.6	4.2	4.1	4.3
educated	5.1	4.9	4.7	4.9
wealthy	4.4	4.2	4.2	4.3
hard-working	4.8	5.0	4.8	4.9
Mean	4.9	4.5	4.6	4.7

There was also a significant interaction effect of language groups and listener groups for the judgements on all personality traits except for competence and hard-workingness. The F-ratios are presented in Table 9, and means for interaction in Table 10. A series of t-tests revealed that the high school students in Vermilion evaluated the English speakers significantly more favourably than the Cantonese speakers on the

69

reliability scale, $t(39)=4.40$, $p<.001$. The high school students in Edmonton gave higher ratings to English speakers than to Cantonese speakers and Ukrainian speakers for the judgements on confidence, $t(57)=5.38$, $p<.001$; $t(57)=8.19$, $p<.001$, reliability, $t(57)=4.77$, $p<.001$; $t=3.68$, $p<.001$, and well-educatedness, $t(57)=7.11$, $p<.001$; $t(57)=4.94$, $p<.001$ (note that t values are presented in the order of Cantonese speakers and Ukrainian speakers respectively). The university students judged the Cantonese speakers significantly more negatively than the English speakers on the confidence scale, $t(39)=3.69$, $p<.001$. In terms of the attractiveness scale, the high school students in both Vermilion, $t(106)=4.438$, $p<.001$, and Edmonton, $t(97)=3.756$, $p<.001$, rated the Cantonese speakers significantly more negatively than did the university students. Vermilion listeners gave significantly lower ratings than the university students to the Cantonese speakers on the interestingness scale, $t(106)=4.376$, $p<.001$.

70

Table 9.

The interaction of language groups and listener groups on evaluations for each personality trait

personality traits	F	personality traits	F
intelligent	5.445*	attractive	5.990*
cooperative	5.054*	educated	5.204*
reliable	5.297*	wealthy	4.682*
confident	3.204*	kind	3.556*
sociable	4.307*	competent	1.248
interesting	5.578*	hard-working	.942

Note. df=2, 288. *p<.05.

71

Table 10.

Means for the interaction of language groups and listener groups on evaluations for each personality trait

Personality traits	English			Cantonese			Ukrainian		
	Univ.	Verm.	Edm.	Univ	Verm.	Edm.	Univ.	Verm.	Edm.
confident	4.8	4.9	5.2	4.3	4.1	4.2	4.6	4.7	4.6
intelligent	5.0	5.1	5.3	5.0	4.5	4.9	5.0	4.6	4.7
reliable	4.7	4.9	5.0	4.6	4.4	4.8	4.9	4.7	4.6
kind	4.9	5.1	5.1	5.1	4.9	5.2	4.9	5.0	5.1
attractive	4.7	4.6	4.5	4.6	3.8	3.8	4.6	4.0	4.0
educated	4.8	4.9	5.5	5.0	4.6	5.2	4.8	4.7	4.6
cooperative	5.0	5.2	5.3	4.8	4.7	5.0	5.1	4.9	4.8
sociable	4.8	4.9	5.0	4.6	4.1	4.4	4.8	4.5	4.5
interesting	4.3	4.1	4.5	4.4	3.6	4.0	4.6	4.0	4.1
wealthy	4.2	4.4	4.5	4.4	4.1	4.3	4.3	4.2	4.2

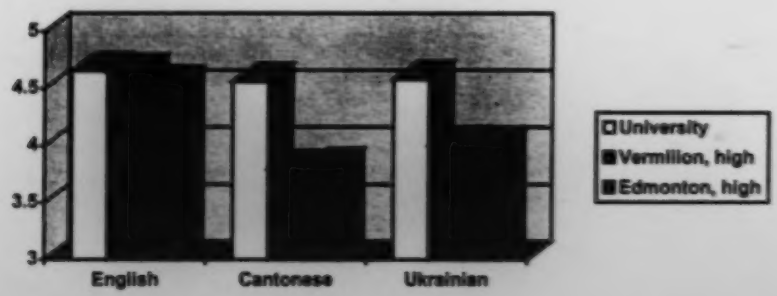
Note: Univ. = Edmonton, university; Verm. = Vermilion, high school; Edm. = Edmonton, high school.

72

The results for some of the personality traits are also plotted in Figure 8 and Figure 9.

Figure 8. Interaction of speakers' L1s and listener groups on reliability judgements

Figure 9. Interaction of speakers' L1s and listener groups on attractiveness judgements



Did the gender of the listeners affect their judgements?

In order to examine a possible gender effect on evaluations for all personality traits across listener groups, I conducted a mixed design ANOVA with language groups as the within factor and gender as a between factor. The main effect of gender was not significant. However, there was a significant interaction of speakers' L1 and listeners' gender, $F(2, 290)=3.442$; $p<.05$. The female listeners gave higher ratings to all language groups, especially to Cantonese and Ukrainian speakers. There was no gender difference

among listeners in their responses to the English speakers. Thus, it appeared that the female listeners evaluated foreign accented speakers more positively than the male listeners.

The mean scores for each language group and gender are tabulated in Table 11, and plotted in Figure 10.

Table 11.

Means for the interaction of language groups and listeners' gender

	Speakers' L1		
Listeners' gender	English	Cantonese	Ukrainian
female	4.9	4.6	4.7
male	4.9	4.4	4.5

Figure 10. Interaction of language groups and listeners' gender

Unpaired t-tests revealed that male listeners evaluated Cantonese speakers significantly more negatively than female listeners, $p<.01$.

Is there a correlation amongst personality evaluation scores, accentedness, and comprehensibility ratings?

I examined correlations between personality evaluations and accentedness and comprehensibility ratings for Cantonese and Ukrainian speakers only, due to small listener variability of accent and comprehensibility ratings for English speakers. There was a small correlation between personality evaluations and comprehensibility ratings for both of the speaker groups, but there was no significant correlation between personality evaluations and accentedness ratings. Comprehensibility ratings and accentedness ratings also indicated a small but significant correlation. The r values are presented in Table 12.

Table 12.

Correlation amongst personality evaluations, accent, and comprehensibility ratings for NNSs

Ratings	Personality traits	Accent	Comprehensibility
	Cantonese (n=166)		
Personality traits	--	-.006	.299*
Accent		--	-.169*
Comprehensibility			--
	Ukrainian (n=166)		
Personality traits	--	-.038	.253*
Accent		--	-.269*
Comprehensibility			--

Note: *$p<.05$.

Is there a correlation between evaluations of NNSs for each evaluative dimension and accentedness/comprehensibility ratings?

In addition, a correlation between evaluation and accentedness/comprehensibility ratings was examined for each of the five evaluative dimensions. Note that the speech characteristics dimension only included ratings on pleasantness of voices for this analysis. The results are tabulated in Table 13 to Table 17. Ratings of all five evaluative dimensions were significantly correlated with comprehensibility ratings for both Cantonese and Ukrainian speakers. Ratings of the personality dimension and speech characteristics dimension showed a small but significant correlation with accent ratings for Ukrainian speakers. Ratings of the stereotyping dimension were significantly correlated with accent ratings for Cantonese speakers.

Table 13.

Correlations between evaluations on personality dimension and accent/comprehensibility ratings for NNSs

Personality dimension	accent	comprehensibility
Cantonese (n=166)	.022	.533*
Ukrainian (n=166)	-.178*	.554*

Note: *α<.05.

Table 14.

Correlations between evaluations on solidarity dimension and accent/comprehensibility ratings for NNSs

Solidarity dimension	accent	comprehensibility
Cantonese (n=166)	-.0008	.611*
Ukrainian (n=166)	-.102	.545*

Note: *α<.05.

Table 15.

Correlations between evaluations on speech characteristics (pleasantness of voices) and accent/comprehensibility ratings for NNSs

Speech characteristics	accent	comprehensibility
Cantonese (n=166)	-.0009	.621*
Ukrainian (n=166)	-.123*	.662*

Note: *α<.05.

Table 16.

Correlations between evaluations on stereotyping dimension and accent/comprehensibility ratings for NNSs

Stereotyping dimension	accent	comprehensibility
Cantonese (n=166)	-.177*	.452*
Ukrainian (n=166)	-.088	.515*

Note: *$p<.05$.

Table 17.

Correlations between evaluations on status dimension and accent/comprehensibility ratings for NNSs

Stereotyping dimension	accent	comprehensibility
Cantonese (n=166)	-.121	.432*
Ukrainian (n=166)	-.186*	.509*

Note: *$p<.05$.

Did correlations between personality judgements and accentedness/comprehensibility ratings vary amongst three listener groups?

I further examined how each of the listener groups' evaluations for each evaluative dimension and accentedness/comprehensibility ratings were related. The results are presented in Table 18 to 22. Correlations between evaluations and

accentedness/comprehensibility ratings varied among the three listener groups, depending on speakers' L1 and evaluative dimensions.

Again, evaluations and accentedness ratings were not significantly correlated except for the evaluations given to the Ukrainian speakers by the high school students in Vermilion. Evaluations were significantly correlated with comprehensibility in most of the cases. The exceptions were Edmonton high school students' evaluations of both of the NNS groups and university students' evaluations of Cantonese speakers in terms of status dimension.

Table 18.

Correlations between each listener group's evaluation for personality dimension and accentedness/comprehensibility ratings

Listener group	Accentedness		Comprehensibility	
	Cantonese	Ukrainian	Cantonese	Ukrainian
Edmonton, Univ.	.069	-.124	.346*	.628*
Vermilion, high	-.131	-.310*	.563*	.545*
Edmonton, high	.067	-.086	.549*	.561*

Note: df=38 (Univ.), 66 (Vermilion, high), and 56 (Edmonton, high). *$p<.05$.

Table 19.

Correlations between each listener group's evaluation for solidarity dimension and accentedness/comprehensibility ratings

Listener group	Accentedness		Comprehensibility	
	Cantonese	Ukrainian	Cantonese	Ukrainian
Edmonton, Univ.	.026	-.028	.390*	.579*
Vermilion, high	-.137	-.212	.645*	.526*
Edmonton, high	.051	-.064	.637*	.617*

Note: dfr=38 (Univ.), 66 (Vermilion, high), and 56 (Edmonton, high). *α<.05.

Table 20.

Correlations between each listener group's evaluation for speech characteristics dimension (pleasantness of voices) and accentedness/comprehensibility ratings

Listener group	Accentedness		Comprehensibility	
	Cantonese	Ukrainian	Cantonese	Ukrainian
Edmonton, Univ.	.066	-.145	.450*	.676*
Vermilion, high	-.071	-.134	.673*	.639*
Edmonton, high	.023	-.198	.586*	.665*

Note: dfr=38 (Univ.), 66 (Vermilion, high), and 56 (Edmonton, high). *α<.05.

Table 21.

Correlations between each listener group's evaluation for stereotyping dimension and accentedness/comprehensibility ratings

Listener group	Accentedness		Comprehensibility	
	Cantonese	Ukrainian	Cantonese	Ukrainian
Edmonton, Univ.	.121	-.122	.172*	.566*
Vermilion, high	-.065	-.095	.444*	.506*
Edmonton, high	.282*	-.088	.344*	.545*

Note: dfr=38 (Univ.), 66 (Vermilion, high), and 56 (Edmonton, high). *p<.05.

Table 22.

Correlations between each listener group's evaluation for status dimension and accentedness/comprehensibility ratings

Listener group	Accentedness		Comprehensibility	
	Cantonese	Ukrainian	Cantonese	Ukrainian
Edmonton, Univ.	.070	-.291	.273	.649*
Vermilion, high	-.066	-.077	.429*	.290*
Edmonton, high	.081	-.173	.088	-.0008

Note: dfr=38 (Univ.), 66 (Vermilion, high), and 56 (Edmonton, high). *p<.05.

Did the three groups of listeners rate ESL speakers differently in terms of accentedness and comprehensibility?

The main effect of listener groups was significant for both Cantonese speakers, $F(2, 158)=3.106$; $p<.05$, and Ukrainian speakers, $F(2, 138)=4.248$; $p<.05$, in terms of accent ratings, and for Cantonese speakers, $F(2, 161)=3.536$; $p<.05$, in terms of comprehensibility ratings. The main effect of listener groups on comprehensibility ratings was not significant for the Ukrainian speakers. A Newman-Keuls post hoc test revealed that listener groups in Edmonton gave significantly higher accent ratings than the listeners in Vermilion to Ukrainian speakers, $p<.05$. In terms of comprehensibility ratings, the post hoc test revealed that the high school students in Vermilion gave significantly lower ratings than the high school students in Edmonton to Cantonese speakers. The ratings of university students were not significantly different from those of the two groups of high school students.

Table 23.

Means for accentedness and comprehensibility ratings by the three listener groups

	Cantonese		Ukrainian	
listener groups	accentedness	comprehensibility	accentedness	comprehensibility
Edmonton, Univ.	5.0	4.4	5.4	4.1
Vermilion, high	4.6	3.9	4.9	3.9
Edmonton, high	5.0	4.3	5.3	4.2

Did the perceived ethnic background of speakers influence listeners' evaluations?

Although there were significant differences in ratings for the three groups of speakers depending on their L1 backgrounds, not all listeners were able to identify the speakers' ethnic backgrounds correctly. In fact, a large proportion of the listeners, the listeners in Vermilion in particular, were unable to identify the L1s of Ukrainian and Cantonese speakers, and listeners' guesses of the speakers' L1 and ethnic background varied a great deal. Therefore, it was less likely that all of the listeners actually differentiated their evaluations on the basis of perceiving the speaker to be a Cantonese speaker or a Ukrainian speaker. Instead, some listeners may have based their evaluations on their *perceptions* of the speakers' ethnic backgrounds.

In order to examine the relationship between the perceived ethnic background of the speakers and the evaluations that they received, I first rank-ordered the eight speakers whose L1s were not English by their mean evaluation scores from highest to lowest. In the next column, I indicated the rank order of the perceived accentedness scale, with '1' being least accented and '8' being most accented. I also indicated the rank order of comprehensibility ratings from '1' being most comprehensible and '8' being least comprehensible. I then calculated the percentage of listeners who thought that a speaker's L1 was an "Asian" or "Oriental" language, and a "European" language. The category "Asian" or "Oriental" includes languages such as Chinese, Japanese, Vietnamese, Indian, Korean, and Filipino languages. "European" languages include those languages which are Germanic, Romance, and Slavic in origin. Secondly, I calculated what percentage of listeners thought that each speaker was either from Asia or

Europe. I only examined Asian and European backgrounds, because the majority of the listeners guessed the speakers' background to be roughly either Asian or European.

First, all the speakers across listener groups were examined. The results are shown in Table 24. Results show that the rank order of accentedness and comprehensibility ratings does not correspond to the rank order of evaluation scores. The top two speakers in terms of evaluations are two Ukrainian speakers who were perceived as most likely to be from Europe or whose L1s were perceived to be European languages, and who were perceived least likely to be from Asia or whose L1s were perceived not to be languages spoken in Asia. One can therefore conclude that listeners' perception of speakers' ethnic backgrounds was partially related to the evaluations.

Table 24.

Rank order of evaluations, accentedness, and comprehensibility scores, and perceived ethnic backgrounds and L1s of the ESL speakers by all the listeners

	Rank orders			Perceived ethnic background		Perceived L1	
speakers	evaluation	accent	comp.	Asia	Europe	Asian	European
U-d	**1**	**5**	**2**	**8 (%)**	**59 (%)**	**7 (%)**	**73 (%)**
U-c	**2**	**5**	**3**	**3**	**54**	**4**	**74**
C-b	3	6	7	24	46	25	54
C-c	4	7	5	77	5	83	9
C-d	4	1	1	18	28	17	51
U-a	**6**	**8**	**8**	**38**	**42**	**32**	**49**
C-a	7	3	6	78	4	83	11
U-b	**8**	**2**	**4**	**11**	**47**	**12**	**61**

Note: U = Ukrainian; C = Cantonese; a, b, c, and d stand for each speaker; comp. = comprehensibility. For the sake of clarity, Ukrainian speakers are indicated in bold font.

Did perception of speakers' ethnic backgrounds influence speakers' evaluations of NNSs depending on the listener groups?

I further broke down the data of each listener group, and tabulated the rank order of evaluations, accentedness ratings, and comprehensibility ratings as well as speakers' perceived ethnic/L1 backgrounds in Table 25 to Table 27.

Table 25.

Rank order of evaluations, accentedness, and comprehensibility scores, and perceived ethnic backgrounds and L1s of the ESL speakers by the university students in Edmonton

	Rank orders			Perceived ethnic background		Perceived L1	
speakers	evaluation	accent	comp.	Asia	Europe	Asian	European
U-d	1	3	2	3 (%)	75 (%)	3 (%)	80 (%)
C-b	2	7	7	30	55	30	50
U-c	3	5	3	3	78	5	88
C-c	4	6	4	88	3	88	5
C-a	5	4	6	90	5	90	10
C-d	6	1	1	23	25	20	45
U-a	7	8	8	38	35	45	45
U-b	8	2	5	10	68	10	78

Table 26.

Rank order of evaluations, accentedness, and comprehensibility scores, and perceived ethnic backgrounds and L1s of the ESL speakers by the high school students in Vermilion

	Rank orders			Perceived ethnic background		Perceived L1	
speakers	evaluation	accent	comp.	Asia	Europe	Asian	European
U-d	1	4	3	12 (%)	38 (%)	9 (%)	66 (%)
U-c	2	4	2	4	40	4	80
C-b	3	6	7	16	38	22	56
U-a	4	8	8	28	44	26	54
C-d	5	1	1	12	25	10	57
C-c	6	7	5	65	9	74	16
U-b	7	2	4	9	34	10	53
C-a	8	3	6	62	3	74	15

Table 27.

Rank order of evaluations, accentedness, and comprehensibility scores, and perceived ethnic backgrounds and L1s of the ESL speakers by the high school students in Edmonton

	Rank orders			Perceived ethnic background		Perceived L1	
speakers	evaluation	accent	comp.	Asia	Europe	Asian	European
U-d	1	5	3	8 (%)	73 (%)	7 (%)	76 (%)
C-c	2	7	5	85	2	90	3
U-c	3	2	2	3	89	3	71
C-d	4	1	1	22	34	24	49
C-a	5	4	6	88	3	90	7
C-b	6	6	7	29	51	24	54
U-b	7	3	4	15	49	15	59
U-a	8	8	8	49	37	37	44

The listeners in Edmonton were in general more successful in guessing speakers' ethnic and L1 backgrounds than the listeners in Vermilion. The extent to which the listeners' evaluations and perception of speakers' ethnic backgrounds were related seems to differ among listener groups. Speakers' perceived ethnic backgrounds negatively correlated with the rank order of evaluations given by high school students in Vermilion.

University of Alberta

Evaluative reactions towards "foreign accented" English speech: the effects of listeners' experience on their judgements

by

Kyoko Sato

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of Master of Science

in

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled "Evaluative reactions towards 'foreign accented' English speech: the effects of listeners' experience on their judgements" submitted by Kyoko Sato in partial fulfillment of the requirements for the degree of Master of Science.

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Abstract

This study examines the evaluations of non-native speakers of English by native speakers of English. High school students and university students judged native speakers of English, Cantonese, and Ukrainian on their personality traits on the basis of taped speech samples. In order to investigate possible effects of familiarity with foreign accents and their speakers on evaluations and comprehensibility of non-native speech, evaluations by listeners in a rural community and listeners in an urban centre were compared. Possible effects of listeners' age, gender, experience in travelling abroad, educational level, and perception of speakers' ethnic backgrounds were also considered. The results indicate that university students in an urban centre do not evaluate accented speech more negatively than that of native speakers. The high school students in both urban and rural areas evaluated native speakers more favourably than non-native speakers. Social, educational, and linguistic implications of the present study are discussed.

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Table of Contents

Chapter 1. Introduction / 1
- Background / 1
- Research questions / 3
- Definition of terms / 3
- Overview / 4

Chapter 2. Literature Review / 56
- Foreign accent and issues of intelligibility and comprehensibility / 6
- World Englishes and their intelligibility in an international context / 21
- Accent and discrimination / 29
- ESL and linguistic/ethnic minorities / 36
- Formation of personality impression / 42
- Accent and social evaluation / 44
  - Social class and language evaluations / 44
  - Degree of accentedness and evaluations / 45
  - Listeners' reactions towards speech with various accents / 46
- Summary / 50

Chapter 3. Experiment / 51
- Research hypotheses / 51
- Method / 52
  - Stimulus text / 52
  - Participants / 52
  - Procedure / 56
- Results / 57
  - Did listeners in all three locations favour NSs more than NNSs of English? / 57
  - Did listeners in different locations evaluate speakers differently? / 558
  - Did the three groups of listeners evaluate speakers differently on five evaluative dimensions? / 60
  - Did listeners follow similar patterns in their evaluation of each personality trait? / 66
  - Did the gender of the listeners affect their judgements? / 73
  - Is there a correlation amongst personality evaluation scores, accentedness, and comprehensibility ratings? / 75
  - Is there a correlation between evaluations of NNSs for each evaluative dimension and accentedness/comprehensibility ratings? / 76
  - Did correlations between personality judgements and accentedness/ comprehensibility ratings vary amongst three listener groups? / 78
  - Did the three groups of listeners rate ESL speakers differently in terms of accentedness and comprehensibility? / 82
  - Did the perceived ethnic background of speakers influence listeners' evaluations? / 83

Did perception of speakers' ethnic backgrounds influence speakers' evaluations of NNSs depending on the listener groups? / 86

Chapter 4. Discussion and Conclusions / 90
Discussion / 90
Evaluations of NSs vs. NNSs / 90
Listener groups and evaluations of speakers across personality traits / 90
Evaluations by three listener groups in terms of five evaluative dimensions / 90
Evaluations for speaker groups by listener groups on each personality trait question / 94
The gender of the listeners and their evaluations / 95
Correlation amongst personality judgement scores, accentedness, and comprehensibility ratings / 96
Correlations between judgements on each evaluative dimension and accentedness/comprehensibility ratings / 96
Correlations between judgements by each listener group on each evaluative dimension and accentedness/comprehensibility ratings for NNSs / 97
Accentedness and comprehensibility ratings by the three listener groups / 98
Perceived ethnic background and evaluations of NNSs / 99
Perceived ethnic background and evaluations of NNSs by the three groups of listeners / 100
Summary / 102
Conclusions / 102
Factors affecting NSs' evaluations of NNSs / 102
Implications and limitations of the present study / 105

References / 109

Appendices / 116
Appendix A / 116
Appendix B / 117
Appendix C / 120

List of Tables

Table 1. Means for the interaction of language groups and listener groups on overall personality trait evaluations / 59

Table 2. Means for the interaction of speakers' L1 and listener groups for personality dimension / 61

Table 3. Means for the interaction of speakers' L1 and listener groups for solidarity dimension / 62

Table 4. Means for the interaction of speakers' L1 and listener groups for dimension of speech characteristics / 64

Table 5. Means for the interaction of speakers' L1 and listener groups for stereotyping dimension / 65

Table 6. Means of the interaction of speakers' L1 and listener groups for status dimension / 66

Table 7. *F*-values for personality traits that indicated the significant main effect of speakers' L1s / 67

Table 8. Mean evaluation scores of each speaker group for each personality trait / 69

Table 9. The interaction of language groups and listener groups on evaluations for each personality trait / 71

Table 10. Means for the interaction of language groups and listener groups on evaluations for each personality trait / 72

Table 11. Means for the interaction of language groups and listeners' gender / 74

Table 12. Correlation amongst personality evaluations, accent, and comprehensibility ratings for NNSs / 75

Table 13. Correlations between evaluations on personality dimension and accent/ comprehensibility ratings for NNSs / 76

Table 14. Correlations between evaluations on solidarity dimension and accent/ comprehensibility ratings for NNSs / 77

Table 15. Correlations between evaluations on speech characteristics (pleasantness of voices) and accent/comprehensibility ratings for NNSs / 77

Table 16. Correlations between evaluations on stereotyping dimension and accent/ comprehensibility ratings for NNSs / 78

Table 17. Correlations between evaluations on status dimension and accent/ comprehensibility ratings for NNSs / 78

Table 18. Correlations between each listener group's evaluation for personality dimension and accentedness/comprehensibility ratings / 79

Table 19. Correlations between each listener group's evaluation for solidarity dimension and accentedness/comprehensibility ratings / 80

Table 20. Correlations between each listener group's evaluation for speech characteristics dimension (pleasantness of voices) and accentedness/comprehensibility ratings / 80

Table 21. Correlations between each listener group's evaluation for stereotyping dimension and accentedness/comprehensibility ratings / 81

Table 22. Correlations between each listener group's evaluation for status dimension and accentedness/comprehensibility ratings / 81

Table 23. Means for accentedness and comprehensibility ratings by the three listener groups / 82

Table 24. Rank order of evaluations, accentedness, and comprehensibility scores, and perceived ethnic backgrounds and L1s of the ESL speakers by all the listeners / 85

Table 25. Rank order of evaluations, accentedness, and comprehensibility scores, and perceived ethnic backgrounds and L1s of the ESL speakers by the university students in Edmonton / 86

Table 26. Rank order of evaluations, accentedness, and comprehensibility scores, and perceived ethnic backgrounds and L1s of the ESL speakers by the high school students in Vermilion / 87

Table 27. Rank order of evaluations, accentedness, and comprehensibility scores, and perceived ethnic backgrounds and L1s of the ESL speakers by the high school students in Edmonton / 88

List of Figures

Figure 1. Mean evaluation scores for three speaker groups / 58

Figure 2. Interaction of speakers' L1s and listener groups for overall personality trait evaluations / 59

Figure 3. Interaction of speakers' L1s and listener groups for personality dimension / 61

Figure 4. Interaction of speakers' L1s and listener groups for solidarity dimension / 62

Figure 5. Interaction of speakers' L1s and listener groups for speech characteristic dimension / 64

Figure 6. Interaction of speakers' L1s and listener groups for stereotyping dimension / 65

Figure 7. Interaction of speakers' L1s and listener groups for status dimension / 66

Figure 8. Interaction of speakers' L1s and listener groups on reliability judgements / 73

Figure 9. Interaction of speakers' L1s and listener groups on attractiveness judgements / 73

Figure 10. Interaction of language groups and listeners' gender / 74

CHAPTER 1: INTRODUCTION

Background

In this study, I investigate how native speakers (NS) of English from rural and urban areas perceive foreign accented speech, and how they evaluate various characteristics of speakers on the basis of their accents alone. I also examine the relationship between listeners' education level and their assessment of accented speech. Often, native speakers' evaluative reactions towards non-native speakers reflect the attitudes of dominant groups towards subordinate groups. This study is an attempt to determine language attitudes in two Canadian communities that have very different ethnic compositions: Vermilion and Edmonton, Alberta. More importantly, I would like to know what factors are relevant in forming certain language and social attitudes towards other cultural groups.

Ryan and Giles (1982) state:

> In every society the differential power of particular social groups is reflected in language variation and in attitudes toward those variations. Typically, the dominant group promotes its patterns of language use as the model required for social advancement; and use of a lower prestige language, dialect, or accent by minority group members reduces their opportunities for success in the society as a whole. (p. 1)

Thus, listeners' attitudes towards speech with different accents would likewise reflect the listeners' perceptions of the speakers with particular backgrounds that are associated with those accents.

This study was precipitated by some unpleasant experiences I have had since coming to Canada three years ago: for example, a worker at a cafe once attempted to shortchange me; another time a shopkeeper replaced the battery of my watch with a dead battery. I wondered what factors motivated those people to do such things. Is it the way I look, the way I sound, or something else? It is difficult to say that such unscrupulous behaviour could be attributed to racial discrimination; perhaps race had nothing to do with it. However, some instances are easier to recognize than others as clear cases of discrimination. One time, I was trying to find the best deal on an airplane ticket to Japan by phoning several travel agencies. When I tried one particular company, a rather blunt travel agent gave me information about a ticket. Shortly after, a friend of mine, who is a native speaker of English, phoned back and asked exactly the same question. Presumably the same agent to whom I had spoken gave the native speaker very different information from what I was given. People may interpret this differently, but I could not resist thinking that it must have been the way I sounded, since it happened over the phone. These and other similar incidents interested me in the study of social evaluations associated with foreign accents.

The way in which listeners perceive speakers with certain speech styles or accents affects speakers' lives. When listeners are members of dominant groups and the speakers are members of minority groups, it is easy to imagine that the speakers will be at a disadvantage. Thus, I believe that listeners' attitudes towards speakers, especially minority speakers, should continue to be challenged, and I hope that this study will contribute to that process. The present study focuses on the effect of familiarity with ESL

speakers on listeners' perception of foreign accented speech and the speakers. Therefore, I selected an urban area which is relatively racially and ethnically diverse and a rural area which is relatively racially and ethnically homogeneous in order to compare listeners' attitudes towards foreign accented speakers. The present study will also have implications for Canada's present immigration pattern, in which 60% of immigrants settle in the three urban centers of Toronto, Montreal, and Vancouver (Citizenship and Immigration Canada, 1994).

Research questions

The main research questions to be explored in the present study are as follows: 1) Are native speakers of English evaluated favourably by native English listeners, compared to ESL speakers? 2) Do university students and high school students in an urban area, and high school students in a rural area, evaluate non-native speakers of English differently? 3) If there are any differences among these three groups of listeners, then where do the differences come from? Is it education level, urban vs. rural location, or something else? 4) Are evaluations of a speaker's personality related to perceived accentedness and comprehensibility?

Definition of terms

Native speakers of English (NSs): speakers whose first language is English (Canadian English in this study).

Non-native speakers of English (NNSs): speakers whose first language is not English.

English as a second language (ESL) speakers: speakers whose second language is English.

Comprehensibility: the definition of this term varies in the literature. In the present thesis, the term refers to the extent to which listeners perceive speech to be understandable.

Intelligibility: the extent to which utterances are measurably understandable.

Foreign accent: speech characteristics such as pronunciation of segments, stress patterns, and intonation that speakers transfer from their first language to their speech in English. This may also include phonological aspects of a NNS's speech that do not exist in either their first language or their second language.

Accentedness: in the present thesis, this term refers to the extent to which speech is perceived to be different from native Canadian English listeners' perception of Canadian English.

Overview

This chapter has provided a brief explanation of the rationale behind the present research, and definitions of some of the terms used most frequently throughout the thesis.

In the next chapter, I will review some of the relevant research in the area of accent and listeners' attitudes, and discuss its relevance to the present research. Chapter 3 will be a summary of research hypotheses. In Chapter 4, I will begin by describing the procedure of the present research: the stimuli; participants; speakers; and the process of data collection and analyses. I will then report the results of the study. In Chapter 5, I will discuss the results and their implications, and draw conclusions. I will also discuss

some limitations of the study as well as some social, educational, and linguistic implications. In addition, I will make some suggestions for directions for future research.

CHAPTER 2: LITERATURE REVIEW

Foreign accent and issues of intelligibility and comprehensibility

The role that foreign accent plays in ESL instruction, particularly the improvement of ESL speakers' English pronunciation, has been the topic of much debate. Stevick (1978) discusses the role of pronunciation in communication and desirable teaching methods of pronunciation in foreign language learning. He points out both negative and positive sides of acquiring native-like pronunciation. "Good" pronunciation of a target language could offend learners' peer groups, but on the other hand, "poor" pronunciation would result in negative evaluation of the learners' intelligence or school work. For Stevick, the teacher's task is to "provide suitable models," and "to make it easy for the student to find out how his efforts compare with the pronunciation that is taken as the standard for the course" (p. 148). However, a question arises here: how should a teacher decide on suitable models for learners, and how should a standard for a course be determined?

Stevick offers an interesting view of pronunciation learning: he states that it is "only one aspect of a total process, social in nature, which involves the whole learner and not just the speech apparatus or cognitive faculties" (1978, p. 148). Stevick emphasizes emotional and social aspects of learning processes. As an example, he suggests that "[f]or a person whose upbringing and previous social development have left him uncomfortable with Southeast Asians, any success at mimicry of Thai will set up conflicts with the self-image that he has come to depend on" (p. 146). What Stevick suggests is that learners' attitudes towards the cultures and speakers associated with the

language that they learn influence how closely they are willing to approximate the pronunciation of native speakers. In fact, it has been suggested that learners' perceptions of or attitudes towards other cultures and speakers are strongly related to learners' success or failure of language learning (Gardner, 1985).

While researchers such as Stevick (1978) and Gardner (1985) focus on teaching methods and psychological aspects of pronunciation learning, other schools of thought examine phonological features that contribute to foreign accent. For instance, Gilbert (1980) stresses the importance of prosodic features in facilitating pronunciation of the target language. In order to confirm the importance of intonation, she conducted an experiment to test if languages could be identified by intonation alone. The experimenters recorded conversations in Japanese, Cantonese, and English, and treated the recordings so that intonation alone was preserved. Speech samples were played to native speakers of Japanese, Cantonese, and English. The listeners were asked to identify which language was being spoken. The listeners averaged 58% correct identification of all three languages. Gilbert, therefore, concluded that "language recognition is possible using prosodic cues alone, further establishing the importance of intonation" (p. 114). Thus, acquisition of accurate prosodic features in L2 may facilitate improved pronunciation. Also, it may also be important to consider how intonation would affect the intelligibility and comprehensibility of NNSs' speech.

Gilbert (1980) further investigated how recognition of intonation patterns could be facilitated. She conducted three experiments to test specifically the effect of training—active and passive—on learning intonation. Passive listening involves the task

of simply listening to the tape, whereas active listening involves mimicry of intonation using kazoos. Japanese ESL students were tested. When the time between pre- and post-test was relatively short (i.e. one week) and rather intensive training was given (one hour in four 15-minute sessions), the active listening group improved significantly more than the passive listening group. Trained groups improved even with less intensive training. Therefore, Gilbert concluded that mimicry is an effective method for learning intonation, and should be used in a classroom. She also concluded that "it is likely that some form of 'stripped speech' focuses the learners' attention" (p. 116). By focusing on one element at a time. The stage of the learning process at which intonation should be taught may deserve further investigation.

Other features of accent have been identified as important components to improve ESL learners' pronunciation. Esling and Wong (1983) suggest methods to make learners aware of voice quality settings of English as well as of their own L1. Voice quality settings are described by Catford (1964) as "the long-term postures of the larynx, pharynx, tongue, velopharyngeal system and lips, as well as long-term laryngeal configurations reflected in the diverse phonation types" (p. 89). Esling and Wong extend Catford's definition and argue that voice quality settings

> may function linguistically, to characterise the particular language or dialect or social group to which a speaker belongs; or they may function paralinguistically, to signal mood or emotion in conversational contexts; or they may also function extralinguistically to characterise or identify the individual speaker. (p.89)

Thus, voice quality settings may be considered as one of the characterizing features of accent, and they may influence listeners' perception of a particular speaker.

Esling and Wong (1983) suggest that voice quality settings are also relevant to intelligibility and comprehensibility: if the voice quality of a speaker's L1 is different from that of a target language, spoken communication may present some difficulties. In addition, the authors stress another important aspect of voice quality setting—the *irritation* factor. "The students' own native setting may contain features which . . . evoke an unfavourable response from English speakers" (p. 91). The authors also point out that voice quality communicates to some extent the speakers' social background, intelligence, or ability. Thus, voice quality settings appear to be quite relevant to successful cross-cultural communication. Esling and Wong suggest specific teaching methods. In general, they stress the importance of drawing learners' attention to voice quality settings in order to help them analyse the characteristics of voice quality settings of the target language as well as those of their own L1. This study is rather innovative in the sense that it recognises the importance of teaching pronunciation in *contexts*, and it allows some variations rather than strictly postulating "native quality."

Gynan (1985) discusses the factors that influence the comprehensibility of interlanguage to native speakers. He draws attention to "irritation," which is relevant to comprehensibility. "An assumption underlying the study of irritation is that even if nonnative speech is comprehensible, the form of the message may be associated with a negative affective response from the native speaker" (p. 160). Gynan further points out that native speaker response to interlanguage is also a result of evaluation. He refers to

the native speaker's evaluative response to language as a *language attitude*. Gynan attempted to identify error hierarchies with regard to comprehensibility, irritation, and the level of learners' proficiency. He discovered that morphosyntactic factors were more salient than phonological ones in terms of subjective measures. However, the phonological factors appeared to be highly correlated with comprehensibility, especially for beginner's speech, and the more salient beginners' errors were found to be "irritating." Gynan concludes that although morphosyntactic errors are more salient than phonological ones, "comprehensibility is more related to phonological factors" (p. 165). It seems important for ESL learners to acquire a certain level of phonological accuracy. However, it should be stressed that perceived comprehensibility is also a function of "irritation" and evaluation on the NSs' side. On the one hand, it would be useful to identify phonological features that are especially "irritating" to listeners. On the other hand, however, the features that listeners feel to be irritating, and the degree to which they are irritating, may differ from one listener to another. Also, highly intelligible speech may still be regarded as irritating (Munro & Derwing, 1995b; Derwing & Munro, 1997), depending on listeners' attitudes. Thus, in order to facilitate smooth cross-linguistic/cross-cultural communication, a more holistic approach should be taken to improve the pronunciation of ESL learners.

Major (1987) discusses research and theories concerning some aspects of L2 phonological acquisition such as age, L1 interference, developmental processes, style, production, and perception. He points out that no single existing theory seems to be able to account for all learner errors. Major concludes that interactions between the

aforementioned factors and existing theories have to be closely examined. Some theories seem problematic. One such theory is advocated by Wojcik (1980, cited in Major, 1987), who claims that "foreign accent is similar to a speech impediment; i.e., they both result from the speakers' failure to suppress the appropriate process(es)" (p. 195). A view such as Wojcik's leads to ESL classes that emphasize "accent reduction" or "remediation." However, the assumption that foreign accent equals impediment should be abandoned, because foreign accent is not a speech deficiency, but rather consists of "detectable acoustic differences" (Flege, 1988b). Flege defines important terms that are frequently used in literature that assumes they are common knowledge to readers. Flege defines *native language* as "the first language(s) an individual learns in early childhood," and *foreign language* or *target language* as "any language(s) learned naturalistically or through formal instruction after establishment of the native language" (p. 226). A *native speaker* is defined as "someone speaking her or his native language" and a *non-native speaker* is "someone speaking a foreign language" (p. 227). Flege states that

> *Foreign accent* is a phenomenological experience of listeners that is derived from detectable acoustic (and perhaps visual) differences between native and non-native speakers in the pronunciation of sounds or other speech units. The perception of foreign accent leads to the conscious or unconscious realisation by the listener that the interlocutor is not a fellow native speaker. (p. 229)

An interesting point raised here is that a foreign accent marks its speaker as different. The statement implies that in some cases a foreign accent may lead to some form of exclusion of foreign accented speakers. Flege defines *pronunciation norm* as "the

collective judgement of native speakers concerning how a sound 'ought' to be pronounced" (p. 229), and *phonetic norm* as something that is physically measurable. Pronunciation norms can be assessed on the basis of *acceptability* and *intelligibility* judgements. Acceptability judgements may have greater variety than intelligibility judgements, in that they may reflect the tolerance or the irritation of judges. The notion of acceptability can be problematic, especially when one assumes that members of certain social groups have the agency to accept or reject others. Flege often uses the term *authenticity*, which refers to "compliance with the phonetic norms of L2" (p. 230). "A sound is produced adequately but not authentically when the listener correctly identifies it, but is nonetheless able to determine that it was not produced by another native speaker" (p. 230). As far as intelligibility is concerned, adequacy is more important than authenticity: pronunciation should be adequate if the message is to be understandable, even if it is judged as not authentic.

Flege (1988b) also discusses the social and communicative significance of foreign accents. He recognises the probable negative effect of accents on how an L2 learner is perceived as a person. For instance, Flege cites Kalin and Rayko (1978), who found that NSs of English in their study generally judged NNSs (Italian, Greek, Portuguese, West African, Yugoslav) to be less suitable for high status jobs than NSs, but to be more suitable for low status jobs than NSs. Foreign accents are prone to be detected either consciously or unconsciously. Flege (1984) found that "accent detection (probably unlike the *recognition* of accents) did not depend on prior experience" (cited in Flege, 1988b, p. 233). Thus, Flege suggests that "accent detection is based on perceived *divergences* from

the phonetic information specified in phonetic category prototypes rather than on the perception of specific (non-native) properties in the speech of non-native talkers" (p. 233).

There are several factors that determine perceived accentedness. It is hypothesised that the degree of perceived accent becomes lower as listeners become familiar with an accent. The listeners' attitudes towards speakers also influence perception of accents. For instance, interlocutors tend to be more patient with speakers who are trying to make themselves intelligible. This tendency has an interesting consequence. Flege (1988b) suggests that "the negative effect of (remaining) divergences will actually increase as an L2 learner gains greater proficiency in L2 because native-speaking listener's [sic] perceive him or her to be making less effort to accommodate" (p. 238). According to Gynan's (1985) finding that morphosyntactic errors were salient at an early stage in L2 learning and gradually become less so, it is possible that accent becomes more pronounced as other features of L2 become more advanced. It is also possible that a level of pronunciation accuracy somewhat comparable to the level of proficiency in other linguistic features may be expected of relatively proficient L2 learners. Thus, phonological advancement to the level at which it will not cause low comprehensibility may be important.

Flege (1988b) also discusses the factors that cause accents. It seems consistent among many studies that age of learning is an important factor, and that it overrides the amount of experience in L2. The "critical period" for learning L2 pronunciation appears to occur much earlier than puberty, at five years old or even earlier. Moreover, there is

experimental evidence that suggests (Flege, Munro, & MacKay, 1995) it is very unlikely that L2 speakers will have an undetectable accent if they have acquired their L2 after early childhood.

L1 influence on L2 has also been studied extensively. Flege (1988b) states that "a basic mechanism in L2 speech learning seems to be the maintenance of previously established patterns of articulation for the production of L2 sounds that bear varying degrees of acoustic and articulatory similarity to L1 sounds" (p. 305). Flege assumes that the L2 sounds familiar/similar to those in L1 impede the learning of new sounds, because learners substitute similar L1 sounds for new L2 sounds and never learn the actual L2 sounds. However, it seems important to examine how (in)effective this substitution is in terms of intelligibility. If substitution doesn't impede communication, a small deviation from the phonetic norm of target sounds should not matter.

Flege (1988b) also extensively examined features of accents in terms of voice onset time (VOT) and vowel quality. He found that differences of VOT or vowel length in L1 and L2 can be learned, but L2 speakers may never exactly match the L1 norm. VOT seems quite fragile in the sense that even L1 VOT is affected by L2 learning. Flege goes on to discuss the role of attention and strategies in L2 learning. It has been suggested that L2 learning involves conscious processes (Schmidt, 1990). This hypothesis seems to be somewhat related to the assumption that the development of perceptual ability and production occur hand-in-hand. Thus, if learners are able to listen to phonetic features particular to a TL and hear the difference between their own production and that of a NS, they could ostensibly "correct" themselves.

I have so far discussed the nature of accent, what determines the presence of accent, and L2 pronunciation. While past research seems to focus largely on issues that have to do with L2 learners, Flege and Fletcher (1992) also discuss listener related issues. They conducted four experiments to explore the influence of listener-talker related factors on the perceived degree of foreign accent.

In their first experiment, Flege and Fletcher (1992) examined the effect of age of learning (AOL) and the role the amount of L2 experience has on adults' pronunciation. Talkers consisted of 20 native speakers of English, 10 native speakers of Spanish who started learning English at the age of 5-6 years ("early learners"), and 20 Spanish speakers who started learning English as adults ("late learners"). Late learners, who had lived in the US for less than a year ("inexperienced") were compared with late learners who had lived there for more than 7 years ("experienced"). The early learners' pronunciation was rated almost as high as that of native speakers of English. Both experienced and inexperienced late learners received significantly lower scores than the early learners. Flege and Fletcher also found that the length of English instruction and the length of stay in the US correlated with degree of accent. Flege and Fletcher suggested that "late learners' pronunciation of English may improve as a function of length of residence in the United States" (p. 377).

In their second experiment, Flege and Fletcher (1992) tested whether "range effects" influence native speakers' judgements of foreign accent. Range effects refer to the phenomenon of NSs judging NNSs' speech to be more strongly accented when a larger proportion of NSs are included in a set of utterances. If range effects exist, they

would lend support to Long's (1990) claim that two factors may influence whether a speaker is judged as native or non-native. One factor has to do with the listeners' "tolerance" for pronunciation variations. "Listeners from a large metropolitan area who have been exposed to many varieties of speech . . . may be more reluctant to classify a talker as non-native than listeners without such an experience of linguistic diversity" (p. 378). Flege's and Fletcher's talkers were native speakers of Spanish who were drawn from the first experiment, and Chinese speakers from Flege's (1988a) study. The results showed that the same speakers received higher scores than in the previous experiment where native speakers of English were included. Thus, Flege and Fletcher conclude that range effects influence foreign accent judgements. This is an interesting finding, because it indicates that "accentedness" is partly a relative judgement.

In their third experiment, Flege and Fletcher (1992) tested the reliability of foreign accent judgements. Listeners rated the speech of native Chinese speakers and native Spanish speakers. They rated the same speech twice with an intervening five minute pause. This experiment had a second session in which listeners were assigned to an identification task in which they were given feedback concerning correct identification. Intra-rater reliability was found to be high. It was found that the listeners' ability to identify the speakers' L1 background did not improve much over the trials. However, the fact that scores decreased in the second session led Flege and Fletcher to suggest that "the listeners became more aware of divergences in the sentences from English phonetic norms during session 2 without becoming more tolerant" (p. 382).

In the final experiment, the two early learner groups, native speakers of Spanish and of Chinese, were compared, and their speech was presented along with the speech of native English speakers. The native speakers of English and the Spanish early learners received significantly higher scores than the Chinese early learners. Note that Spanish speakers started learning English at the age of 5-6, whereas Chinese speakers came to the US at an average age of 7.6 years.

The most important finding in this study is that AOL plays a critical role in acquisition of L2 pronunciation. The "critical period" appears to be much earlier (5-6 years old) than generally believed. In a study by Flege, Munro, and MacKay (1995), an average of 59% of variance in the accentedness ratings was accounted for by AOL. They also estimated that the AOL for the first emergence of foreign accent is somewhere between three to 11 years of age. In their study, very few ESL speakers who started learning English after 15 years of age were judged to fall within the NS range. Another interesting finding is the influence of the "range effect" on accent ratings; that is, whether one's speech is judged to be accented or not largely depends on the proportion of NNSs amongst NSs. The range effect may also apply to social settings as well, and may be related to the familiarity effect. In other words, where the population of NNSs is substantial, and thus its proportion to NSs is large, people may not judge accented speech harshly.

Some studies suggest that foreign accent does not necessarily impede communication. Munro and Derwing (1995a) investigated the relationships amongst accentedness, comprehensibility, and intelligibility of the speech produced by ESL

speakers. Eighteen native speakers of English listened to extemporaneous English speech produced by 10 NSs of Mandarin and two NSs of English. Listeners then transcribed the utterances (as an intelligibility measure) and rated the degree of accent and comprehensibility of the utterances on 9-point scales. The researchers found that the degree to which perceived comprehensibility and accent are related showed considerable listener variability, while comprehensibility ratings were correlated to a greater degree with intelligibility. They examined a subset of the utterances that were 100% intelligible, and compared the comprehensibility and accent ratings for those utterances. The researchers found that the relationship between perceived intelligibility and accent showed considerable listener variability. Many utterances that were perfectly intelligible were perceived to be moderately or even heavily accented. Thus, although Munro and Derwing point out that unintelligible utterances were always rated as heavily accented and difficult to understand, they concluded that a strong foreign accent does not necessarily reduce intelligibility or comprehensibility in every case.

Although it is not clear what criteria the listeners used to judge accentedness of the speech, "phonemic errors, phonetic errors, and goodness of intonation" (Munro and Derwing, 1995a, p. 91) seem to have played a role. The range of pronunciation that is accepted by listeners may also differ. It is also interesting to note that one of the NSs of English received lower comprehensibility ratings than many other NNSs. This seems to indicate that comprehensibility may also be determined by factors other than accent. Munro and Derwing (1995a) conclude that "if comprehensibility and intelligibility are accepted as the most important goals of instruction in pronunciation, then the degree to

which a particular speaker's speech is accented should be of minor concern, and instruction should not focus on global accent reduction, but only on those aspects of the learner's speech that appear to interfere with listeners' understanding" (p. 93).

In a related study, Munro and Derwing (1995b) explored the relationship between intelligibility, comprehensibility, and foreign accent. Talkers were native speakers of Mandarin. Listeners who were NSs were assigned to do a sentence verification task. In this study, response latency data indicated that the utterances of Mandarin speakers took longer to verify than the utterances of NSs. Thus, Munro and Derwing suggested that although all the utterances were intelligible, the longer processing time was due to the presence of accent in the utterances. In other words, accented speech required extra processing time. Also, the utterances that received lower comprehensibility ratings took longer to process than those with higher comprehensibility ratings. Thus, Munro and Derwing suggested that listeners may judge the utterances that take longer to process to be less comprehensible, even though they ultimately understand the message. They also suggested that the degree of accentedness is not a definite indicator of processing time. On the other hand, significantly more utterances produced by NSs were correctly verified than the utterances produced by NNSs. Thus, it seems that foreign accent may have reduced the intelligibility of some of the utterances. However, Munro and Derwing found that although processing times were related to comprehensibility ratings, they were not related to accent ratings. Therefore, the researchers conclude that although having a foreign accent has some costs, even a heavy accent is not "an inevitable barrier to communication" (p. 302). They suggest that

> the notion that foreign accent 'reduction' automatically entails improved comprehensibility is quite incorrect. If improved communicative competence is a primary goal in second language teaching, then attention ought to be directed to those specific aspects of the learner's speech that most affect comprehensibility and intelligibility and not to those aspects simply associated with accent. (pp. 302-303)

These two studies by Munro and Derwing (1995a; 1995b) have suggested that even though accent can certainly reduce intelligibility, it does not always do so. Thus the presence of accent does not always impede communication. In light of these findings, then, an immediate association of foreign accent reduction and increased communicative ability of ESL learners may be partially unjustified. As Munro and Derwing (1995b) point out, judgement of comprehensibility of foreign accented speech by NSs was affected by the increased processing time due to the presence of foreign accents. The researchers speculated that although the listeners were ultimately able to understand the utterances, the fact that they had to work hard in order to understand might have caused irritation.

In a more extensive study of the relationship between accent, comprehensibility, and intelligibility, Derwing and Munro (1997) found similar results. In that study, talkers were native speakers of Cantonese, Japanese, Polish, and Spanish. It appeared that accent ratings were harsher than comprehensibility ratings. Although they found significant correlation scores between perceived comprehensibility ratings and intelligibility scores, overall the utterances were highly intelligible. The researchers also found that

comprehensibility ratings were harsher than intelligibility scores. They concluded that listeners may perceive accented speech as difficult to understand due to increased processing time or effort, even though the speech is intelligible.

Derwing and Munro (1997) also found that the degree of listeners' familiarity with speakers of Cantonese, Japanese, Polish and Spanish appeared to be a predictor of successful identification of speakers' L1s. Moreover, identification of speakers' L1s was moderately correlated with intelligibility scores. The researchers therefore suggested that there is a relationship between intelligibility and familiarity with accents. Gass and Varonis (1984) found that familiarity with topic, NNS speech, a particular accent, and a particular speaker facilitated comprehension of accented speech. Thus, the utterances that are related to a previously presented text and are read by the same speaker as the one who read the initial text were most comprehensible.

If familiarity with particular accents does indeed facilitate actual intelligibility of accented speech, then an effort towards increased intelligibility of accented speech could presumably be made by NS listeners as well. As Munro and Derwing (1995a) point out, the presence of foreign accent in speech does not always cause unintelligibility. Thus, other factors should also be taken into consideration in order to improve intelligibility. For instance, discourse factors such as topic familiarity or shared information may also contribute to increased intelligibility of NNSs' speech (see Gass & Varonis, 1984).

<u>World Englishes and their intelligibility in an international context</u>

As reviewed above, a goal of L2 pronunciation learning has aimed roughly either at native-like accuracy or sufficient accuracy for communication. However, since there

are many varieties of English even on the North American continent, which variety should be an ideal model and whose communication should be facilitated are interesting questions and rather sensitive issues: acknowledging one variety leads to discounting other varieties. In this section, I will review some studies and views on varieties of English, and the question of model in relation to the issue of intelligibility world-wide.

Prator (1968) claimed that standard English pronunciation (British English, RP in particular, in his sense) is the model that should be mastered by English as a foreign language (EFL) learners. He criticized Britain for being too generous with regard to varieties of English in places where English is not the native language of the inhabitants. He stated that "the heretical tenet I feel I must take exception to is the idea that it is best, in a country where English is not spoken natively but is widely used as the medium of instruction, to set up the local variety of English as the ultimate model to be imitated by those learning the language" (p. 11). He criticizes "Americans" for giving every recognition and encouragement to "second-language" varieties of English that practically "no one speaks natively." His criticism of US leniency is ironic in light of the considerable body of research documenting discrimination based on second-language varieties of English in the US (e.g. Matsuda, 1991; Sato, 1991; Lippi-Green, 1997).

Prator's criticisms are grounded on the assumption that British English is "the mother-tongue," and he regards other varieties of English elsewhere as "second-language varieties." He claims that the mother-tongue varieties of English are ideal for international communication, because second-language varieties are not intelligible.

Prator states that any "abnormality of speech" can lead to unintelligibility, and therefore even a little deviation (e.g. a foreign accent) should not be permitted.

In an attempt to support his claim, Prator (1968) draws an example based on his experience with a student from India. Prator claims that "the most unintelligible educated variety is Indian English. . . . It is hard to doubt that there is a direct connection between these conclusions and the fact that the doctrine of local models of English is championed more often and more vehemently in India than anywhere else" (p. 27). Thus, he suggests that establishment of local varieties of English at the cost of an instructional standard for TESL is not desirable.

In response to Prator's stance, Kachru (1976) argues for the establishment of local varieties of English. He claims that the function of English in Third World contexts such as India and Africa is not a means to introduce British or American culture, but "to teach and maintain the indigenous patterns of life and culture, to provide a link in culturally and linguistically pluralistic societies, and to maintain a continuity and uniformity in educational, administrative and legal systems" (p. 35). His claim that English can integrate varieties of cultural groups has a crucial implication for the question of intelligibility: namely, intelligible to whom?

Prator (1968) assumes that the primary goal of English use is to interact with British or Americans, but Kachru (1976) suggests that it is not necessarily the case; intelligibility to British, American, or other "native speakers" of English is unnecessary in many instances. Linguistic parameters should be set for social contexts in a speech community, and thus a model does not have to be RP or standard American English.

Kachru writes, "Let the model be educated Indian English. A little effort on the part of the native speakers to understand Indians is as important as a little effort on the part of Indians to make themselves understood by those who use English as their first language" (1976, p. 47). Although I agree with Kachru, I think his emphasis on "*educated* Indian English" is limiting in itself in the sense that it privileges the speech of those who have the social status needed to gain access to "educated" varieties. Thus, it does not seem desirable to overemphasize an "educated" variety, not only in an Indian context, but in other contexts as well. Varieties within a particular speech community should also be respected.

Kachru (1976) states that native speakers of English should abandon the attitude of linguistic chauvinism and develop linguistic tolerance, which would have a desirable impact on various cultures and language users. He further states that "[m]y main aim is to question the bases of the linguistic attitude which one encounters in the English speaking world toward the transplanted varieties of English which have developed in Africa, South Asia and other parts of the world" (1976, p. 49).

Smith and Rafiqzad (1979) tested if non-native varieties of "educated" English are intelligible to listeners of various national backgrounds. Talkers were educated people selected from six countries: Hong Kong, India, Japan, Korea, Malaysia, Nepal, the Philippines, Sri Lanka, and the United States. Taped speech by those talkers was sent to Asia, and data were collected locally. Intelligibility was measured by a cloze procedure test, and a listening comprehension questionnaire was prepared to test understanding. Intelligibility, difficulty of passages, and understanding were compared among talkers

from each country. The results showed that talkers from the US and HK were least intelligible, and the rest were highly intelligible across listeners from Asian countries. Thus, Smith and Rafiqzad conclude that there is no reason to insist on a native speaker to be the model in English classrooms. This was an innovative study that directly dealt with the question of mutual intelligibility of Englishes. The results actually proved that a so-called "native variety" of English (Prator, 1968) does not necessarily contribute to international communication.

Smith (1992) further investigated whether or not different varieties of English are intelligible to one another. He also examined the effects of English proficiency, and familiarity with topic and speech varieties, on intelligibility (word/utterance recognition), comprehensibility (word/utterance meaning), and interpretability (meaning behind word/utterance). Smith tape-recorded English produced by individual speakers from China, India, Indonesia, Japan, Papua New Guinea, the Philippines, Taiwan, the UK, and the US, and played those recordings to three groups of participants. Group 1 of the participants consisted of 10 Japanese speakers of English whose TOEFL scores ranged from 375 to 600. They were only familiar with speech varieties or forms of address of Japanese, American, and British speakers. Group 2 consisted of 10 native speakers of American English, who were not very familiar with varieties of speech and the address forms of countries other than those of the US. Group 3 was a mix of speakers with various backgrounds: one native speaker (from the US) and eight non-native speakers (one each from Burma, China, Indonesia, Japan, Korea, the Philippines, and Thailand).

They were all fluent in English, and were familiar with several varieties of English and the address forms. The test materials were tape-recorded conversations.

The results showed that all the conversations were highly intelligible to the listeners. Also, the participants in Group 3 were best able to interpret the conversations correctly. They also had the greatest confidence in their ability to understand the conversations. Interestingly, the native speakers were not able to identify American speakers as well as the participants in Group 1 or Group 3.

While most of the speakers were perceived to be well-educated, 10% of the non-native speakers of English thought that the speaker from India was not well-educated, and 10% of the native speakers of English perceived the speakers from Papua New Guinea and Indonesia to be not well-educated. This is an interesting result, considering that 60% of the native speakers of English thought the speaker from Papua New Guinea was a native speaker of English. There is no indication as to whether those who thought that the speaker from Papua New Guinea was not well-educated were those who thought that the speaker was a native speaker of English. The listeners who judged some of the NNSs to be not well-educated may have based their judgements on linguistically associated stereotypes.

Most of the listeners, except the mixed participant group, thought that all the speakers used standard English, with the exception of speakers from India and Japan. Thirty three percent of the mixed listener group thought that the speaker from the US used non-standard English. Thus, Smith suggests that "non-native English speakers need not be indistinguishable from native speakers in order to be judged as using Standard

English" (p. 86). He further claims that "it is possible for Standard English to be spoken with many different accents" and "this is one of the very positive results of the vast spread of English across the globe" (p. 88). It may be also possible, though, that "standardness" and "nativeness" are understood differently. Alternatively, one could suggest that there is no one standard English, but multiple standard Englishes with different phonology, syntax, and so forth.

Smith (1992) concludes that the language proficiency of the listeners affects intelligibility and comprehensibility. He states that "being a native speaker does not seem to be as important as being fluent in English and familiar with several different national varieties. . . . the increasing number of varieties of English need not increase the problems of understanding across cultures, if users of English develop some familiarity with them" (p. 88). This claim seems to be more progressive than asking NSs to develop, in Kachru's (1976) words, "linguistic tolerance." Tolerance may not be a solution, because one can tolerate a variety and still retain a negative attitude towards it. Understanding by becoming familiar with linguistic varieties should be a more desirable goal.

Van der Walt (1995) also challenges the commonly held assumption that British English should be taught as a model. She supports the idea of accepting and teaching local varieties of English. Van der Walt mainly discusses three issues: the idea of 'world Englishes' and its significance in a South African context, studies of intelligibility, and standardisation. She criticizes the fact that British English is assumed to be the only appropriate model in South Africa. This assumption leads to stigmatisation of local

varieties of English as "wrong" or "incorrect." She implicitly suggests that there should be a distinction between "fossilised errors" and "a feature of a specific variety of English" (p. 7). In other words, some features that differ from British varieties of English may simply characterize a certain variety of English and may not necessarily be errors.

The importance of Van der Walt's paper is that fundamental but often neglected issues are addressed. The notion of "intelligibility" and both past and ongoing studies of intelligibility comprise one such issue. Nelson (1982, p. 60, as cited in van der Walt, 1995, p. 8) points out that "studies attempting to empirically determine the intelligibility of communication between native and non-native speakers focused on phonological features primarily, in situations where contextual clues were limited." Van der Walt suggests that "intelligibility should ideally be tested in authentically produced and perceived discourse **above** sentence level" (p. 10). As well, it seems to me that intelligibility can be determined by various aspects of communicative strategies as well. Varonis and Gass (1982) also suggested that comprehensibility is affected by the interaction of many factors such as grammar, familiarity, fluency, and social conditions.

Van der Walt (1995) points out the fact that "existing studies tend to measure intelligibility against a specified standard" (p. 8), usually American or British varieties of English. In the majority of studies, "native speakers" judge "non-native speakers" of a particular language, without considering who falls into which category, and why. She emphasises that standardisation of any particular variety of language should be considered in relation to the functional use of the varieties in the context of their speech communities. She also points out the importance of destigmatising local varieties in

comparison with Western varieties of English. As Kachru (1976) argued, where English is a means of communication in a culturally and linguistically pluralistic speech community, there is no reason to enforce British or American English. A local variety of English is a sufficient and a logical choice.

Accent and discrimination

Conflicts generated by language attitudes of members in a speech community towards certain varieties of English can be exemplified by the case of Hawaiian Creole English (HCE) in Hawaii. Although Sato (1991) admitted that negative attitudes toward HCE exist, she suggested that there is increasing support for HCE as well. She illustrated this point by discussing public opposition to a policy that was formulated by Hawaii's Board of Education (BOE). The policy stated that "Standard English [would] be the mode of oral communication for students and staff in the classroom setting and all other school related settings except when the objectives cover[ed] native Hawaiian or foreign language instruction and practice" (p. 653). Some members of the public argued that HCE was a vital aspect of local identity. More interestingly, the responses to the BOE's policy revealed a clear case of class differences in language attitudes. In an informal survey of students at public and private high schools, only 26% of the private school students felt that HCE use should be allowed in school, while 54% of the public school students felt so (Verplogen, 1988, cited in Sato, 1991, p. 654). Sato states that "the survey's results seem to reflect general social class and rural-urban differences, with the working class students attending rural public schools showing much stronger loyalty to HCE than the urban private school students from middle and upper-income families" (p.

654). The possible relationship between language attitudes and language users' backgrounds, rural versus urban in particular, will be examined in the present study.

Sato (1991) points out that "questions were raised concerning the inherently political definition of standard English" (p. 657). This is an important question in ESL, especially when one considers what to teach whom, and why. "Standardness" is relative, and is determined in reference to the status of each language variety. For instance, as Sato points out, standard Hawaiian English is not standard in relation to a Mainland variety of English, although the former is a mainstream means of communication in Hawaii.

Matsuda (1991) argues for linguistic pluralism and elimination of discrimination based on accents. She focuses her discussion on the US antidiscrimination law Title VII and its significance in various court cases in the past, and she searches for an application of it towards justice. Matsuda first presents and analyzes the significant accent cases that illustrate the paradox of Title VII, which disallows discrimination on the bases of race, national origin, and traits when they are inherent in race and national origin, but allows employers to discriminate on the basis of job ability. Thus, in many accent cases, employers' claims that communication skills are required for a job, and that speakers with foreign accents that impede communication are thus inappropriate for the position, have been found reasonable. However, the paradox here is that accent is associated with a speaker's race or national origin.

In the court cases that Matsuda (1991) reports, the importance of communication skills is emphasized and rationalized without evidence to justify accent-based

discrimination. Matsuda, however, critically examines the notions of communication and communicative ability. Drawing from sociolinguistic studies, she points out the fact that "speakers of the low-status speech variety, by necessity, are able to understand speakers of the high-status variety. Speakers of the high-status variety, on the other hand, frequently report that they cannot understand speakers below them on the speech-status scale" (p. 1352). She argues that tolerance of differences and motivation for understanding are what is really needed for communication, because "comprehension is as much as a function of *attitude* [italics added] as it is of variability" (1991, p. 1362).

It is inevitable that high intelligibility is a requirement for some occupations such as teachers, doctors, air traffic controllers and broadcasters. Thus, fair measurement of intelligibility of a job applicant's speech is in some cases necessary. However, in the cases reported by Matsuda (1991), plaintiffs seem to have had good communicative skills and good intelligibility although they had non-standard accents. In other words, there was no clear evidence that the plaintiffs' accent actually interfered with their job performance. If speakers with accents are not hired because of the kinds of accents they have (as opposed to unintelligible speech), then it would be an incidence of discrimination based on foreign accent, or on the race or national origin that is associated with the accent. The problem may lie with the difficulty of distinguishing "between an *admissible* business judgement based on business necessity or personal preference and *inadmissable* [sic] considerations based on race or national origin" (Lippi-Green, 1997, p. 159). Thus, it is crucial to assess actual intelligibility and clarity of speech in relation to what a job entails.

Matsuda (1991) also discusses the issue of intelligibility and "accent." She argues that intelligibility is relational rather than absolute. That is to say, intelligibility is also determined by the listener. Depending on who is listening, an accent could help or hurt communication. When listeners are motivated to understand their interlocutors, intelligibility becomes higher than when listeners are lacking such motivation. Thus, comprehension adjustments should be fairly easy for motivated listeners. In terms of the notion of "accent," Matsuda puts forward the view that accent is socially constructed, and the "standard" is a contextualized notion rather than a generic linguistic property of a language variety. Matsuda strongly supports linguistic pluralism, and states that it represents a generous and tolerant self that marvels at "difference" (p. 1387). She argues against standardization and linguistic intolerance, and argues that "holding people in a nation as radically diverse in accents as ours [USA] to one standard of pronunciation is a declaration that this is a nation of one voice" (p. 1375). The exclusion and repression of certain accents are justified by the inherent superiority, efficiency, universality, and unifying effect of the "standard accent." However, those justifications disguise "an exercise in power" (p. 1395). Matsuda emphasizes that assumptions such as the superiority of a standard accent are imposed in order to rationalize discrimination on account of accents.

From a legal standpoint, Matsuda (1991) suggests that law can potentially be practised for justice in accent cases. Matsuda suggests that, in accent cases, courts should consider points such as 1) the level of communication required for the job, 2) whether the job applicants' speech is fairly evaluated, 3) the intelligibility of applicants to relevant,

nonprejudiced listeners, and 4) reasonable accommodations for the job and limitations in intelligibility. Matsuda finally expresses her sincere wish that the many voices of America be heard.

Language policies of governments also have an impact on the lives of speakers of minority languages. Hernández-Chávez (1994) gives an historical overview of language policies in the US. The overview makes it clear that language policies in the US—either an English-only policy or a partial admission of non-English languages—have been laid out for the benefit of the Anglo-American population. Even when minority languages are accepted, the acceptance is often motivated by administrators' desire for convenience and not for the advantage of minority groups. For instance, Hernández-Chávez comments on the limitations of linguistic civil rights and argues that

> non-English languages are used officially only with monolinguals (or near monolinguals) and only as a compensatory mechanism, not as a language right. They function both to ease administrative burdens and, ironically, to acculturate members of ethnic minority groups into the bureaucratic system. In this way, minority languages and cultures are undermined at the same time that they are used to gain support among minorities for the programs and to mute their opposition to governmental language policies. (1994, p. 153)

Historically, English-only movements or policies have been tied with nationalism, which in turn is affected by economic depression, war, international conflicts with other countries and so forth. The language policies that recognise only English have had an impact on political, economic, and educational systems, and, in the author's words, have

led to "cultural genocide." Cultural genocide has taken different forms, but the most prevalent one is to attempt complete assimilation of minority groups to the dominant Anglo-American culture. Hernández-Chávez (1994) critically views a notion of "integration" that is usually assumed to be encouraged for the newcomers: " 'Integration' into the dominant society is seen as a proper objective only insofar as this means the cultural adaptation of the minority to the norms of the majority rather than the full and equal participation by all groups. . . . A more cynical analysis might conclude that the true goal is to maintain a racially based system of power and control and of unequal access to resources" (p. 158).

Integration into mainstream culture may be desired by minorities as well, and they may have a strong desire to replace their accents with a standard accent, perhaps in an attempt to gain upward mobility, or for other various reasons. Lippi-Green (1997) however calls it "the seduction of perfect English" (p. 228). "The seduction of perfect English, of belonging absolutely to the mainstream culture of choice, is one that is hard to resist" (Lippi-Green, p. 228) for many ESL speakers. To Lippi-Green, such consent by ESL speakers takes part in a language subordination process: "First, one person or group must want to make another person believe that their language—and hence their social allegiances and priorities—are inferior. Second, that targeted person or group must become complicit in the process" (p. 242).

Wiley and Lukes (1996) examine English-only and standard English ideologies in the US and their influences on language planning and policy that involve English instruction for immigrants and speakers of "non-standard" varieties of English. The

authors especially call attention to the structure and role of language assessment. The underlying assumption of such course offerings as "Basic English writing skills" is that a deficiency in standard English should be "corrected" or "remedied." The authors point out that this kind of course generally carries a negative connotation, and often assumes that the students who enrol are non-native speakers of English. Moreover, students are assigned to those courses on the basis of their scores in English tests, and their L1s are never taken into consideration.

Existing language assessment tests assume standard language as a norm, which is based on a literacy tradition. Thus, language tests measure certain aspects of language proficiency that filter out those who do not have the same tradition. Wiley and Lukes (1996) argue that "assessments that measure language proficiency solely in standard English and do not take into account L1 proficiency have led to results that have been inappropriately interpreted as indicating that language minorities are less intelligent and need remedial or special education courses" (p. 529).

This is an important article, one that focuses on language assessment and explicitly talks about its potentially problematic role in the reproduction of inequalities. As has been discussed, gatekeeping mechanisms are also relevant to accent-based cases. To what extent phonological varieties cause actual unintelligibility for all language users is often unclear. Lippi-Green (1997) comments on the role of mass media in standard English ideologies, and states:

> The need for an approach to language which will minimize the technical problems of broadcasting has turned into an arena for who has a right to make decisions—

and enforce them—about how English should be spoken, and who deserves to be heard. (p. 139)

Problems concerning language assessment may partly have to do with who should be assessing language proficiency and on what basis. It seems important to make sure that language assessment is fair and reasonable with a clearly defined purpose.

ESL and linguistic/ethnic minorities

I have discussed the complex relationships between accent, varieties of English, intelligibility and speech communities. What then constitutes desirable ESL?

Leather (1983) reviews some existing studies and discusses "a rationale" for L2 pronunciation teaching. In terms of pronunciation goals, Leather suggests that a near-native accent is not a necessary goal for learners, but a reasonable goal should be to become "'comfortably intelligible' (Abercrombie, 1963) and to sound socially acceptable" (p. 198). He also suggests that acceptability of non-native speech is related to the degree of accent and what L2 variety the speech most approximates. Leather claims that the pronunciation goals in learning should be considered in the context of the L2 program as a whole.

Leather (1983) raises some important questions. He points out that "there is no consensus on what the observable correlates of 'good pronunciation' might be" (p.205). In other words, judgements tend to vary from one listener to another. Recall Major's (1987) and Flege's and Fletcher's (1992) studies which suggest that there are many factors that influence listeners' judgements of ESL speakers' pronunciation.

While linguistic rights of minority speakers should be protected, some researchers suggest that it is a reality that not having access to a "mainstream" language variety tends to limit employment or educational opportunities. Thus, it is important to give minority speakers full access to a "standard" variety, as additive bidialectalism (Sato, 1989) and to "empower" minority speakers (Peirce, 1989).

Peirce (1989) challenges the commonly accepted notion of communicative competence as a goal of teaching English and proposes a pedagogy of possibility. Communicative competence means what is appropriate within a certain discourse in a given community, which includes sociolinguistic rules that are unquestioningly accepted by speakers. Discourses in poststructuralist theory, on which Peirce bases her arguments, are "the complexes of signs and practices that organize social existence and social reproduction" (p. 404), and have "cultural and political corollaries and are implicated in the way we perceive ourselves and our role in society" (p. 405).

Peirce (1989) argues that English can be used to challenge the conditions on which sociolinguistic rules are based. The sociolinguistic rules refer to "appropriate" usage of a language. For example, in some communities in South Africa, it is appropriate for black people to call a white male supervisor *master*. Peirce also argues that teaching is a political process that takes part in social reproduction. For these reasons, the discourse of language teaching—English language in particular in this context—should be re-examined. While teaching English reinforces the reproduction of social inequalities, it can also expose those inequalities, help learners seek their possibilities, and "empower" (Simon, 1987, cited in Peirce, 1989, p. 408) the learners. Empowering

learners means enabling people who have been marginalised in a community to speak and fully participate in a community.

Peirce (1989) draws examples from "People's English" and a comic in South Africa. People's English was proposed at a national conference to establish curricula or syllabi that would support people's power and participation in people's education. It was intended to be distinguished not from British English or American English, but from Apartheid English. The aims of People's English were to inform students of the evil nature of apartheid, to make students "think and speak in nonracist, nonsexist, and nonelitist ways" (p. 411), and to enable students to free themselves from oppression. People's English redefined language competence, which includes "an understanding of language as socially and historically constructed, but at the same time open to dispute" (p. 412).

A comic book was published as a pedagogical tool to promote People's English. The comic's content was organised in such a way that it facilitated the development of critical thinking and reading and writing skills. The comic, as a form of popular culture rather than traditional and conventional British literature, was accessible to a wide audience. The utilisation of popular culture thus worked to "incorporate aspects of students' lived culture into pedagogical work without depicting the students as exotic or marginal, as an 'other' within the dominant hegemonic culture" (p. 416).

In response to Peirce's (1989) article, Dubois (1990) dismisses the "pedagogy of possibility" and "poststructuralist theory of language" advocated by Peirce by calling them "the same old linguistic determinism" (p. 103) seen in the Sapir-Whorf hypothesis,

and she further claims that People's English is an act of neo-colonialism. She seems to be a little defensive of her own position as an ESL teacher, and argues that her teaching does not determine students' ideas. Peirce (1990), however, responds clearly and points out that teachers' positions in classrooms are never neutral. No matter what they do—affirming, negating, or ignoring students' comments—teachers are committing a political act. Peirce argues that what is important here is to theorize the political role of teachers. She also discusses the validity of poststructuralist theory, and rejects Dubois's view. Peirce explains that in poststructuralist theory, "linguistic communities are perceived to be heterogeneous arenas in which language is implicated in the struggle over meaning, access, and power" (p. 108). In this sense, People's English may be considered an attempt to reconstruct the meaning, and henceforth challenge the power, that has been operating in the construction of meaning of English in South Africa, specifically within the context of apartheid.

Pennycook (1989) similarly argues that "knowledge is socially constructed, represents particular ways of understanding and explaining the world, and since it therefore always reflects the interests of certain individuals or groups, is inevitably inscribed in relationships of power" (p. 612). On the basis of this claim, he criticizes the recent trend in which social scientists claim objective and neutral observations of phenomena. Similarly, Pennycook attempts to invalidate the notion of *method*. He argues that methods are neither neutral nor cohesive. The advancement of "new" methods 1) serves the interests of certain individuals or groups such as academics and/or publishing companies, and 2) has very little relevance to what goes on in classrooms.

Also, a patriarchal understanding of method and teaching serves to maintain inequalities. Moreover, the methods that Western teachers from "developed" countries import into "developing" countries are assumed to be superior to the local ones. The same kind of trend can be observed in English varieties. The varieties, in terms of pronunciation in particular, that are taught internationally tend to be Western varieties; such a trend serves to favour western speakers, but not necessarily local speakers (see also Peirce, 1995).

Pennycook (1989) maintains that method in second language education predominantly serves the interests of white male academics. He argues that we have to understand who is controlling classroom practice and who is teaching—"the state, in concert with capital and a largely male academic body of consultants and developers, intervening at the level of practice into the work of a largely female workforce" (Apple, 1986, pp. 36-37, cited in Pennycook, 1989, p. 610). Pennycook concludes that it is crucial for teachers to know the social and political roles they play, and understand "the social and political implications of the theoretical paradigms that inform our work" (p. 612).

However, teachers or classrooms may be able to serve minority language speakers' interests. Peirce (1995) collected voices of minority ESL learners in her qualitative, longitudinal study of five immigrant women. Those women kept diaries of language learning experiences in their homes, workplaces, and communities over a 12 month period. Peirce and the participants met regularly to discuss their experiences. Some of the journals cited in this paper include clear cases in which "accent" was a target of humiliation and exclusion. Peirce's approach to collect actual narratives of the ESL

learners served to make their voices heard, and she was able to document the lived realities of those learners.

Peirce (1995) advocates the notion of *investment* instead of *motivation*. While instrumental motivation presupposes "a unitary, fixed, and ahistorical language learner who desires access to material resources that are the privilege of target language speakers," the notion of investment "conceives of the language learner as having a complex social identity and multiple desires" (pp. 17-18). Peirce argues that the language learner and the language learning context cannot be separated. The conceptions of an individual in SLA should be re-conceptualized in relation to the social world. In her view, language learners have complex social identities which are subject to change over time.

Peirce (1995) suggests that "how relations of power in the social world affect social interaction between second language learners and target language speakers" (p. 12) is of great importance, and it is crucial to teach learners to be aware of their "right to speak" (p. 18). Peirce discusses the importance of "classroom-based social research" (p. 26) in which language learners actively engage in investigations in communities and interactions with TL speakers. It seems to me that this is an innovative and potentially empowering approach for otherwise marginalised learners. At the same time, perhaps the speakers of TL other than teachers also have to be made aware of SL learners' right to speak.

Formation of personality impression

It has been suggested in psychological theories that listeners judge speakers' personalities on the basis of non-verbal speech characteristics such as voice quality. Kramer (1963) suggested that listeners can judge speakers' emotional shifts and personal characteristics from nonverbal properties such as timbre, inflection, and stress of speakers' voices. In a review of existing studies, Kramer cites Pear (1931), who examined responses to questions about nine readers from over 4000 listeners of British radio. In Pear's study, listeners were able to estimate the age and sex of the speakers easily. Listeners were also able in some cases (an actor and a clergyman) to guess speakers' occupations accurately. Although listeners guessed speakers' occupations incorrectly in other cases, certain errors in guessing a speaker's profession were significantly consistent. Thus, Kramer suggests that "some voices provide a stereotype of a certain occupation even though this is not the actual occupation of this speaker" (p. 408).

Although there are confounding experimental results reported, the majority of studies seem to suggest the existence of a relationship between nonverbal voice properties (e.g. voice quality such as breathy voice, flow and clearness in speech) and judgements of speakers' personality and emotional state. Although most of the studies reviewed in Kramer's paper (1963) were clinically based, the findings of those studies seem to have implications for studies of language attitudes. If certain voice characteristics evoke "vocal stereotypes," then it seems reasonable to assume that foreign accent as a voice characteristic would evoke stereotypes.

How, then, do listeners form stereotypes from voice characteristics? Do they associate an overall impression of the voice with certain occupations or personalities, or do they add or subtract each voice characteristic (in terms of identifying an accent, transfer of L1 acoustic characteristics to L2) to ultimately form an image of the speaker? Brown (1986) suggests that some perceived personality traits are more salient than others, and people tentatively form an overall impression of a person's personality on the basis of those important traits. The characteristics of the salient traits are that they are rather clear in terms of either negative or positive qualities. For instance, "intelligent" and "warm" are clearly positive terms, while "stupid" and "lazy" are clearly negative ones.

Brown (1986) suggests that pieces of information about a person are acquired randomly, but they are stored in memory in a unified fashion. He also claims that social information is more likely to be organized in terms of events, arguments, or ethnic groups, rather than organized in terms of individuals, when the information is not clustered by person. In addition, Brown suggests that organization in terms of individuals is more likely to happen with acquaintances than with strangers, and with a stereotypical combination of traits than with an unexpected combination. Based on Brown's claims, it can be inferred that one is very likely to form an impression of a stranger based on given social information, stereotypes in particular, rather than information about an individual. In fact, social information that is clustered by social categories such as ethnicity, gender, class, or race may in some cases be more salient than individual differences in terms of personality judgements. This assumption is particularly relevant to the present study in

its investigation of the effect of familiarity on personality judgements based on voice cues that presumably provide some social information on the speakers.

Accent and social evaluation

One possible consequence of having a foreign accent is to be perceived negatively because of the stereotypes or prejudices that accent may evoke on the part of a listener. These negative perceptions based on accent can have a negative influence on how speakers are positioned in a speech community, such as Filipino accented speakers in the US (see Matsuda, 1991; Lippi-Green, 1997). The present study investigates how adult native speakers of English perceive foreign accented speech and evaluate its speakers solely on the basis of their accents. The rationale of speech evaluation studies is based on the assumption that "the stereotyped impressions that members of one ethnolinguistic group held of another group could be called forth effectively by speech cues alone" (Lambert, 1967, cited in Brennan & Brennan, 1981, pp. 207-208). Therefore, it is assumed that if listeners are exposed to accented speech, any stereotypes associated with that particular accent will emerge.

Social class and language evaluations

Ryan and Sebastian (1980) investigated the separate or interactive effects of social class and ethnicity on evaluative reactions to speakers. Eighty undergraduate students with either lower-class or middle-class backgrounds rated male speakers of either standard or Spanish-accented English on status, solidarity, stereotype, and speech characteristics, and they also made social distance judgements. The assumption was that "accentedness will act predominantly as a cue to ethnicity whereas the social class

background information will more directly influence assumptions about belief and attitude similarity" (p. 229). In order to examine the effects that speakers' social class have on listeners' evaluations, the experimenters used an experimental group in which the information on speakers' social class backgrounds was given, and a control group in which the information was not presented.

The results indicated that standard speakers were perceived significantly more favourably than accented speakers in terms of all five ratings in the lower-class context. For accented speakers, significantly more positive scores were given under the middle-class guise than the lower-class guise on all but the speech characteristic scales. For standard speakers, however, middle-class speakers were associated with significantly higher status but assigned lower speech ratings. In terms of social distance measure for middle-class speakers, significantly more subjects preferred to enter the most intimate interactions with the speakers of standard English than with the accented speaker. Therefore, Ryan and Sebastian (1980) concluded that the interaction between social class and ethnicity of the speakers suggests that "being *both* a member of a different ethnic group *and* an individual with a lower-class background results in decidedly negative evaluations" (p. 232).

Degree of accentedness and evaluations

Giles (1972) investigated the effects of degree of accent on listeners' evaluations. South Welsh and English college students rated English speakers with various regional accents on pleasantness of the voices, speakers' social status, and communicative aspects.

Giles's study showed that speakers whose accents were perceived to be stronger were evaluated less favourably.

Brennan and Brennan (1981) investigated the relationship between degree of accent in Mexican American speakers' English and evaluative judgements by Mexican American and Anglo American listeners. Judgements were examined in terms of two evaluative dimensions—status and solidarity—using a 7-point rating scale. It was found that speakers with lower degrees of accent received higher status ratings than speakers with higher degrees of accent. However, this trend was not so prominent for solidarity ratings. (Only magnitude estimations of accentedness given by Mexican Americans were significantly correlated with solidarity scores.)

Listeners' reactions towards speech with various accents

A considerable number of studies have been done on listeners' evaluative reactions to foreign accent or linguistic/dialectal variations. One of the earliest studies was done by Lambert (1967) in a Canadian context. He developed a method called the "matched-guise" technique in which bilingual speakers read the same passage twice, once in English and once in Canadian-style French. Listeners were English Canadians (ECs) and French Canadians (FCs). Lambert found that both groups of listeners evaluated EC guises more favourably than FC guises. It is interesting that FC listeners downgraded the speakers in the guise of their own ethnic group. The reason for this reaction is not clear. I can only speculate that minority speakers are well aware of their linguistic status in a society, and such a view might have been reflected in their downgrading of their own kind. In other words, it is possible that the listeners in Lambert's study projected an

acceptance of a class-related standard (Brennan & Brennan, 1981) onto their relatively negative evaluations of their fellow speakers.

Some early studies suggest that the gender of speakers also affects listeners' perception of them. Preston (1963, cited in Lambert, 1972) examined the reactions by ECs and FCs towards female and male speakers of English and Canadian French. He found that the EC listeners, both female and male, rated the female speakers more favourably in their French guises than in their English guises, but the listeners rated the male speakers more favourably in their English guises than in their French guises. In particular, male EC listeners judged that female speakers in French guises were more intelligent, ambitious, self-confident, dependable, courageous and sincere than in their English guises. The effect of the speakers' gender in that study seemed to be so strong that it overrode the language effect. Why listeners favour minority language speakers if they are female but not if they are male requires further investigation.

Ryan and Carranza (1975) investigated reactions to accented speech and standard English speech. They had Mexican Americans, African Americans and Anglo Americans listen to a speech in standard American English and in Mexican American accented English, and give evaluations on status and solidarity dimensions. The study revealed that Mexican American listeners made less status differentiation between accented speakers and standard English speakers than the other two groups.

Nesdale and Rooney (1996) investigated the effect of language accents on children's evaluations and stereotyping. Listeners were 40 10-year-olds and 40 12-year-olds from a relatively monocultural school (monocultural group) and a relatively

multicultural school (multicultural group). Talkers consisted of children who spoke with strong and mild Anglo-Australian, Italo-Australian and Viet-Australian accents. Unlike most other research, Nesdale and Rooney used the "verbal guises" technique (Callan, Gallois, & Forbes, 1983), in which different speakers are matched in terms of a number of personality and linguistic variables. This technique differs from the matched guise technique (Lambert, 1967) in that each speaker speaks with one accent, while the matched guise technique has one speaker speaking in two languages or accents. Each accent was labelled with its ethnic designation for half of the listeners, and unlabelled accents were presented to the rest of the listeners. The listeners evaluated the accented speech on status and solidarity scales and on traits comprising the stereotypes of each group.

Anglo-Australian accents were perceived to have greater status than the other two accents, and Italo-Australian accents were perceived to have greater status than the Viet-Australian accents. Nesdale and Rooney (1996) suggest that this is due to the fact that Italo-Australians are rather well-established in Australian society, whereas Vietnamese people are more recent immigrants, and smaller in number. Mild accents were perceived by the older children, not by younger ones, to have higher status than the strong accents. However, when the accents were labelled, the accent strength effect disappeared. Thus, Nesdale and Rooney suggest that "knowledge of the speaker's ethnic group membership provides information about the speaker's status, which reduces the listener's dependence on accent strength as a basis for differentiating status" (p. 144). There was no significant

difference between the monocultural group and the multicultural group of listeners in terms of status scaling.

Strong accents were attributed greater solidarity than mild accents. The labelled Viet-Australian accent was attributed greater solidarity than the other two labelled accents. The interaction between contact and ethnicity was significant. That is, the multicultural group, who had contact with each of the ethnic groups, attributed more solidarity to the Viet-Australian accent than the other two accents. The difference in solidarity scaling on identified vs. unidentified accents was significant only for the older children from multicultural schools. Nesdale and Rooney concluded that "contact with minority ethnic groups increases the Anglo-Australian majority group's tolerance" at this age range (p. 146). In general, the age factor and identification of accents seem to have played important roles in evaluative reactions. It might be possible that accent per se did not necessarily elicit evaluative reactions; rather, listeners were reacting to ethnic groups rather than to speech. It is also possible that identification of accents by listening to speech is simply a difficult task, especially for children.

Moreover, in Lambert et al.'s study (1966), the bias against speakers of Canadian French by working-class adolescents was less prominent than that of upper-middle-class adolescents. The studies by Lambert et al. (1966) and Nesdale and Rooney (1996) seem to suggest that listeners' age and social class are important factors in their attitudes toward minority language groups. Thus, in the present study, I compared listeners' educational level, age, and experiences.

Summary

In this chapter, I presented some of the extensive research on L2 accent. I began with a discussion of the studies on the nature of accent, and its effect on intelligibility and comprehensibility. I proceeded with a discussion of intelligibility of varieties of Englishes in a global context, and then introduced the studies that documented incidences of discrimination based on accent. Those studies relate to my own and my friends' experiences as accented speakers, as well as to the present study, in the sense that they demonstrated the negative consequences—other than communication breakdown—of having an accent. As a basis for the rationale of my present study, I drew upon a number of psychological studies on personality impression. I then reviewed some of the research on listeners' evaluations of speech based on accents. Language issues that centre around accent are complex, and they entail linguistic, social, and educational consequences. It seems that having an accent could have significant effects on speakers' communicative skills as well as how a speaker is perceived, and judgements based on accent are in turn often influenced by various social factors such as gender, social class, ethnicity, race and age.

CHAPTER 3: EXPERIMENT

Research hypotheses

In the present study, I attempt to investigate the difference in NNSs' reactions towards foreign accented English speech between listeners in a rural area and an urban area. Earlier studies in listeners' reactions towards foreign accented speech have not focused on the potential influence of listeners' experience due to their living environment. Without taking into account contextual differences in listeners' reactions, the attitudinal studies would fail to reach more generalizable conclusions. Thus, the present study casts light on a neglected aspect of listeners' reactions, and specifically documents contextual effects on NNSs' reactions towards foreign accented speech.

In Nesdale's and Rooney's study (1996), the socioeconomic status of the listeners was one of the most prominent factors in determining listeners' attitudes towards foreign accented speakers. Thus, I hypothesize that the socioeconomic status of the listeners will be a factor in my research. Note, however, that due to the difficulty of assessing listeners' socio-economic backgrounds, I will only examine listeners' backgrounds in terms of their parents' education level. I also hypothesize that listeners' educational level and experience abroad may have some effect on the listeners' attitudes. Listeners who have experience interacting with a variety of cultures and people may be more positive towards linguistic varieties than the listeners who do not have such experiences. It is expected that language evaluation will reflect how favourably a variety is viewed, and will affect the evaluation of social groups who are associated with a particular variety. I hypothesize that due to the difference in their experience, listeners in culturally diverse

areas will react to foreign accented speech and its speakers more positively than listeners in relatively homogeneous areas. Thus, listeners' reactions in relatively racially and ethnically diverse Edmonton are expected to be more positive than those in relatively racially and ethnically homogeneous Vermilion. At the same time, it is hypothesized that the responses towards an accent that is associated with a relatively established and non-visible minority group would differ from the responses towards an accent that is associated with new immigrants and/or a visible minority group. I also hypothesize that the age and gender of the listeners will be important factors in evaluative reactions.

Method

In order to test the hypotheses stated above, I tape-recorded the voices of three groups of speakers, including visible and non-visible minority speakers, whose L1 backgrounds varied. I asked listeners who differed in their educational level, experience, and age to respond to questionnaires after listening to tape-recorded utterances. Results were statistically analyzed.

Stimulus text

I prepared a short passage in English with culturally neutral content (see Appendix A). The passage was extracted from an ESL textbook (Cameron & Derwing, 1996), and modified slightly in order to minimize any potential effect on judgements of voices.

Participants

Speakers. The group of 12 speakers (all volunteers) consisted of four native speakers of Cantonese, four native speakers of Canadian English, and four native

speakers of Ukrainian, ranging in age from 20-35 years. In order to eliminate a potential gender variable, all speakers were female. I attempted to balance the native speakers of Cantonese and Ukrainian such that each group had one very heavily accented and one very mildly accented speaker. The remaining speakers were judged to be in the middle range. The initial judgements of speakers' accentedness were made by the author. All but two of the second language speakers were students at the University of Alberta, where the minimum score of TOEFL is 580, and all but one were highly proficient speakers of English. The exception was one of the Ukrainian speakers, who was registered in a high intermediate ESL class. However, she did not have difficulty reading the stimulus text.

Listeners. Grade 11-12 students who were attending high schools in Vermilion and Edmonton, Alberta, and university students who were enrolled in a linguistics course (non-majors) at the University of Alberta in Edmonton, participated voluntarily in the study. The listeners consisted of 69 high school students in Vermilion, 79 high school students in Edmonton, and 54 university students. All the participants in Vermilion were native speakers of English. In both Edmonton settings, there were some speakers whose first language was not English; I eliminated those participants from the analyses for the purpose of the present study. Also, one of the participants in Vermilion was excluded from the analyses due to the unusual nature of her responses. Thus, 68 rural high school students, 60 urban high school students, and 40 university students in Edmonton were included in the analyses.

Out of the listeners in Vermilion, 26% had been to a country other than the US, and 16% had been abroad to a country outside Europe and North America. Six percent of

the listeners in Vermilion had lived abroad more than three months. In Edmonton, 46% of the high school students had been abroad to a country other than the US, and 32% had been to a country outside Europe and North America. Twenty-two percent of the listeners in Edmonton had lived abroad more than three months in a country other than the US, and 19% had lived abroad in a country outside Europe and North America. Sixty-three percent of the university students had been abroad to a country other than the US, and 38% had been abroad to a country outside Europe and North America. Thirty percent of them had lived abroad for more than three months in the same country, all of them in a country other than the US, and 15% of them had lived abroad in a country not in Europe. In general, the listener groups in Edmonton have had more experiences travelling outside Canada, and outside the North American continent in particular, than the high school students in Vermilion.

It was found that 38% of the mothers and 33% of the fathers of the university students have university degrees. Twenty percent of the mothers and 28% of the fathers of the high school students in Vermilion have university degrees. Twenty seven percent of mothers and 32% of the fathers of the high school students in Edmonton have university degrees. In general, a larger percentage of the parents of participants in Edmonton hold university degrees as compared to the parents of participants in Vermilion. The fathers of university students and the fathers of high school students in Edmonton have a comparable level of education, but in general, a larger percentage of the parents of university students have university degrees.

The difference in the level of education of the participants' parents in Edmonton and Vermilion is greater when compared in terms of graduate degrees. Eighteen percent of the mothers and 15% of the fathers of the university students hold Masters or PhD degrees, while only 1% of the mothers and 6% of the fathers of the high school students in Vermilion have a Masters or PhD. In terms of the high school students in Edmonton, 5% of the mothers and 15% of the fathers have post-graduate degrees. Thus, the level of education of the parents of the three groups of listeners differs, especially between the participants in Edmonton and the participants in Vermilion.

Questionnaires. Listeners responded to two questionnaires: the first, Questionnaire A (QA) (see Appendix B), had 25 questions for the study involving university student listeners. The questions asked listeners to judge the speakers' comprehensibility and accentedness, and to evaluate dimensions such as personality traits, status, and solidarity. The questions were selected based on previous studies by Lambert (1967), Ryan and Carranza (1975), and Brennan and Brennan (1981), as well as Likert scales constructed by Dr. Bernard Rochet at the University of Alberta. Some questions on evaluative dimensions were eliminated for the other two studies in high schools on the basis of the results of the university study. Questions that were dropped (starred on QA) had large listener variability and did not indicate clear tendencies of preference for one accent group over another. The evaluative questions required the listeners to make judgements on 7-point scales. The second questionnaire, Questionnaire B (QB), consisted of questions about the listeners' experiences in foreign languages and

travelling, and their educational, linguistic, and ethnic backgrounds as well as other demographic information. (For details, see Appendix C.)

Procedure

I tape recorded each speaker's voice on a separate tape in a sound room using a microphone (Sennheiser MD4120) and a mixer (Shure M267) connected to a Tanderg educational tape recorder (TCR 522). All speakers were given an opportunity to practice reading the stimulus text prior to being recorded. I first dubbed the voice of a male native speaker of English reading the same passage. This was done to ensure that listeners would be familiar with the passage prior to listening to the female voices. I then dubbed 12 stimulus voices onto the same tape with a Sony Stereo Cassette Deck TC-WR735S in a random order following the male voice. Thus, there were in total 13 voices reading the same passage.

In order to avoid a possible effect resulting from a non-native speaker of English and a member of a visible minority conducting an experiment on foreign accent, I arranged for the same Caucasian native speaker of Canadian English to conduct the experiment each time.

Experiments were conducted in three high schools—one in a rural area, and the other two in culturally diverse urban areas—and in a university. One of the experiments was conducted in Vermilion, Alberta, where 3.6% of the total population is Ukrainian and .05% is Chinese. Other experiments were done in Edmonton, Alberta, where 2% of total population is Ukrainian and which has much larger Chinese population (3% of total population) than Vermilion (Statistics Canada, 1991a, 1991b). Experiments involving

high school student listeners were conducted in quiet classrooms, one class at a time. There were about 15 to 20 students in each class, and in every case, teachers remained in the room. The experiment involving university student listeners had all listeners in a single lecture room. The tape was played on a portable stereo tape deck (Sanyo MCD-Z31). Listeners were asked to listen to the 12 female voices and judge their personalities as if they were listening to someone's voice for the first time on the telephone or radio. They were instructed to work on QA as soon as they listened to each speaker's voice, and answer the questions in QB after listening to all 12 voices. First, the male voice was played to familiarize listeners with the content of the passage, and the 12 female voices were played in the following order: 1) a native speaker of English (E), 2) a native speaker of Cantonese (C), 3) a native speaker of Ukrainian (U), 4) C, 5) U, 6) E, 7) E, 8) U, 9) E, 10) C, 11) C, and 12) U. The experimenter waited until everyone finished filling out the questionnaire before moving on to the next voice.

The data were entered in Excel files, and the results of QA were statistically analyzed using Super ANOVA and StatView.

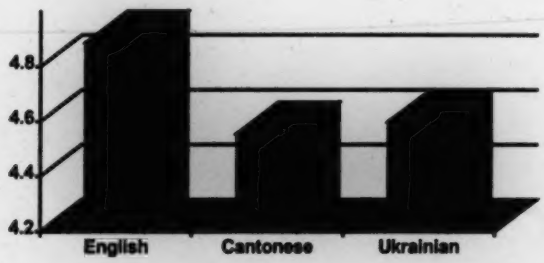
Results

Did listeners in all three locations favour NSs more than NNSs of English?

I conducted a one-way ANOVA with accents as a within factor, for all listeners in high schools in Edmonton and in Vermilion and in the university in Edmonton. The results indicated a significant effect of speakers' accents, $F(2, 292)=30.697$; $p<.0001$. The results of a t-test with Least Squares Means indicated that Cantonese speakers, $p<.001$, and Ukrainian speakers, $p<.001$, received significantly lower evaluations than

English speakers (Note that when I conducted more than three t-tests in a set of data to be compared, I set the significance level as $p<.001$ to avoid increased possibilities of attaining significant results. Otherwise—including Newman-Keuls post hoc tests—the significance level is $p<.05$). The mean evaluation scores for Cantonese speakers and Ukrainian speakers were not significantly different from each other. Thus, across personality traits, all the listeners evaluated NSs more positively than NNSs.

Figure 1. Mean evaluation scores for three speaker groups



Did listeners in different locations evaluate speakers differently?

The listeners' evaluations of the speakers with different accents differed amongst the three listener groups, depending on speakers' L1s. University students in Edmonton did not differentiate their evaluations according to kinds of accent. The results of a two way ANOVA with one within factor (language) and one between factor (listener groups) indicated that the effect of listener group on the overall evaluations was not significant. However, there was a significant interaction effect of language groups and listener groups, $F(4, 288)=6.076$; $p<.0001$. The mean scores for each language group given by

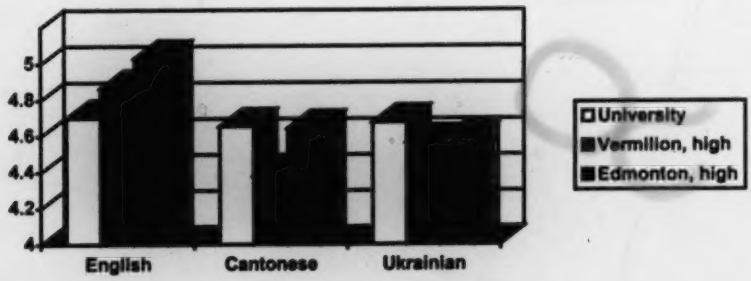
each of the three listener groups are tabulated below (Table 1), and the interaction is plotted in Figure 2.

Table 1.

Means for the interaction of language groups and listener groups on overall personality trait evaluations

	Listener groups		
Language groups	Edmonton University	Vermilion High school	Edmonton High school
English	4.7	4.9	5.0
Cantonese	4.7	4.4	4.6
Ukrainian	4.7	4.6	4.6

Figure 2. Interaction of speakers' L1s and listener groups for overall personality trait evaluations



In terms of English speakers, none of the listener groups' evaluations were significantly different from each other at $p<.001$. The results of an Unpaired Means

Comparison indicated that both the university students, t=4.126; p<.001, and the high school students in Edmonton, t=3.464; p<.001, gave significantly higher evaluations to Cantonese speakers than the high school students in Vermilion. In terms of Ukrainian speakers, the evaluations of the three groups of listeners did not differ significantly.

Unpaired t-tests revealed that the evaluations of the university students and the high school students in Edmonton for the three accent groups did not significantly differ. Also, the evaluations of high school students in Vermilion for English speakers, Cantonese speakers, and Ukrainian speakers were not significantly different at p<.001.

Did the three groups of listeners evaluate speakers differently on five evaluative dimensions?

A series of two-way ANOVAs with speakers' L1 as a within factor and listener groups as a between factor indicated that the three listener groups evaluated speakers on five evaluative dimensions differently depending on the speakers' L1 backgrounds. Questions are clustered into five evaluative dimensions that I determined based on previous research (Brennan & Brennan, 1981; Nesdale & Rooney, 1996; Ryan & Carranza, 1975; Ryan & Sebastian, 1980;). These dimensions are: 1) personality, 2) solidarity, 3) speech characteristics, 4) stereotyping, and 5) status.

Personality dimension: This dimension consists of the questions on the speakers' intelligence, competence, confidence, kindness, and sociability (QA questions 1, 2, 4, 7, and 8). The difference among the three listener groups' evaluations was not significant. The effect of speakers' L1 was significant, $F(2, 328)$=53.734; p<.01. The interaction

effect of speakers' L1 and listener groups was also significant, $F(4, 328)=4.208$; $p<.01$. Means are presented in Table 2.

Table 2.

Means for the interaction of speakers' L1 and listener groups for personality dimension

	English	Cantonese	Ukrainian
Edmonton, univ.	4.9	4.7	4.8
Vermilion, high	5.0	4.4	4.7
Edmonton, high	5.2	4.7	4.7

Figure 3. Interaction of speakers' L1s and listener groups for personality dimension

The results of paired t-tests revealed that the high school students in Vermilion evaluated Cantonese speakers, $t=8.26$; $p<.001$, and Ukrainian speakers, $t=4.444$; $p<.001$, significantly more negatively than English speakers. The high school students in Edmonton also gave significantly more negative evaluations to Cantonese speakers, $t=5.73$; $p<.001$, and Ukrainian speakers, $t=5.01$; $p<.001$, than to English speakers. University students' evaluations did not significantly differ among speaker groups.

Solidarity: The questions that are included in this dimension are the speakers' reliability, cooperativeness, interestingness, and attractiveness (QA questions 5, 6, 10, and 12). The main effect of listener groups was not significant. The main effect of speakers' L1 was significant, $F(2, 328)=37.851$; $p<.0001$. A significant interaction effect of speakers' L1 and listener groups was also found, $F(4, 328)=7.041$; $p<.0001$.

Table 3.

Means for the interaction of speakers' L1 and listener groups for solidarity dimension

	English	Cantonese	Ukrainian
Edmonton, univ.	4.7	4.6	4.8
Vermilion, high	4.7	4.1	4.4
Edmonton, high	4.8	4.4	4.4

Figure 4. Interaction of speakers' L1s and listener groups for solidarity dimension

The results of paired t-tests indicated that university students in Edmonton rated Cantonese speakers significantly more negatively than Ukrainian speakers, $t=3.544$; $p<.001$. High school students in Vermilion evaluated Cantonese speakers, $t=6.78$;

$p<.001$, and Ukrainian speakers, $t=4.056$; $p<.001$, significantly more negatively than English speakers. High school students in Edmonton also gave significantly more negative evaluations to Cantonese speakers, $t=4.056$; $p<.001$, and Ukrainian speakers, $t=4.643$; $p<.001$, than to English speakers.

Speech characteristics: This evaluative dimension includes judgements on pleasantness of the voice and comprehensibility (QA questions 20 and 21). The main effect of listener groups, $F(2, 164)=6.82$; $p<.01$, and the main effect of speakers' L1, $F(2,328)=350.852$; $p<.0001$, were both significant. A Newman-Keuls post hoc test revealed that high school students in Vermilion gave significantly lower ratings across speaker groups than the other two groups of listeners. Ratings by university students and high school students in Edmonton were not significantly different. The interaction of listener groups and speakers' L1 was also significant, $F(4, 328)=3.321$; $p<.05$. A series of paired t-tests revealed that high school students in Vermilion rated Cantonese speakers, $t=5.759$; $p<.001$, and Ukrainian speakers, $t=5.522$; $p<.001$, significantly more negatively than English speakers. Likewise, Edmonton high school students evaluated Cantonese speakers, $t=4.039$; $p<.001$, and Ukrainian speakers, $t=3.953$; $p<.001$, significantly more negatively than English speakers.

Table 4.

Means for the interaction of speakers' L1 and listener groups for dimension of speech characteristics

	English	Cantonese	Ukrainian
Edmonton, univ.	5.4	4.4	4.3
Vermilion, high.	5.3	3.9	3.8
Edmonton, high.	5.6	4.3	4.2

Figure 5. Interaction of speakers' L1s and listener groups for speech characteristic dimension

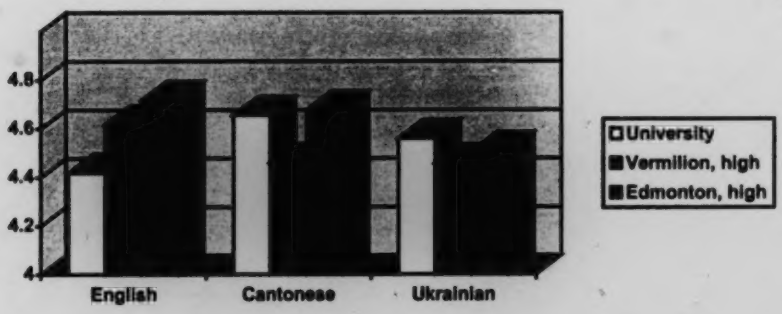
Stereotyping: Judgements on the speakers' wealthiness and hard-workingness constitute this dimension (QA questions 18 and 19). Only the interaction effect of speakers' L1 and listener groups was significant, $F(4, 328)=3.65$; $p<.01$. The results of t-tests indicated that none of the pairs were significantly different from each other at $p<.001$.

Table 5.

Means for the interaction of speakers' L1 and listener groups for stereotyping dimension

	English	Cantonese	Ukrainian
Edmonton, univ.	4.4	4.7	4.6
Vermilion, high.	4.6	4.5	4.5
Edmonton, high.	4.7	4.7	4.5

Figure 6. Interaction of speakers' L1s and listener groups for stereotyping dimension



Status: The question related to this dimension is the speakers' well-educatedness (QA question 17). The main effect of speakers' L1 was significant, $F(2, 328)=12.011$; $p<.0001$. Unpaired t-tests revealed that Ukrainian speakers received significantly lower ratings than English speakers, $p<.0001$. There was a significant interaction effect of speakers' L1 and listener groups, $F(4, 328)=5.38$; $p<.001$. A series of paired t-tests indicated that high school students in Vermilion gave significantly more negative ratings to Cantonese speakers than to English speakers, $t=3.546$; $p<.001$. It was also found that

high school students in Edmonton rated Ukrainian speakers significantly more negatively than English speakers for this evaluative dimension, t=3.928; p<.001.

Table 6.

Means of the interaction of speakers' L1 and listener groups for status dimension

	English	Cantonese	Ukrainian
Edmonton, univ.	4.8	4.9	4.8
Vermilion, high.	4.9	4.6	4.7
Edmonton, high.	5.5	5.2	4.6

Figure 7. Interaction of speakers' L1s and listener groups for status dimension

Did listeners follow similar patterns in their evaluation of each personality trait?

Listeners did not follow similar patterns in evaluating speakers on each personality trait. I found significant main effects of listener groups and language groups, and an interaction effect of language groups and listener groups. In order to examine whether the evaluations given by three groups of listeners for all personality trait questions were of a uniform pattern, I conducted an ANOVA with a one within (language

group) and one between (listener groups) factorial design for the evaluation scores given on each personality trait question. The main effect of listener groups was significant only for the evaluations on speakers' perceived interestingness, $F(2, 145)=5.185$; $p<.01$, and attractiveness, $F(2, 144)=4.569$; $p<.05$. A Newman-Keuls post hoc test revealed that for the interestingness judgements, the listeners in Vermilion gave significantly lower ratings across the speakers' L1s than the listener groups in Edmonton. The difference between Edmonton high school students' evaluations and university students' evaluations was not significant. The results of the Newman-Keuls post hoc test for the attractiveness judgements indicated that the university students gave significantly higher ratings than the other listener groups, $p<.05$.

The main effect of speakers' L1s was significant for all personality traits except "kindness". F values for the personality traits that showed the significant main effect, $p<.05$, are tabulated in Table 7.

Table 7.

F-values for personality traits that indicated the significant main effect of speakers' L1s

Personality traits	F	Personality traits	F
competence	37.566	educatedness	9.604
confidence	53.837	sociability	36.107
intelligence	26.019	hard-workingness	4.657
reliability	11.42	interestingness	9.286
attractiveness	36.048	wealthiness	4.153

Note: df=2, 328

I compared the mean evaluation scores for each personality trait given to each language group. The results indicated that for the evaluations in terms of speakers' intelligence, competence, and cooperativeness, Cantonese speakers and Ukrainian speakers received significantly lower scores than English speakers. For the listeners' judgements on speakers' reliability, confidence, sociability, and interestingness, Cantonese speakers received significantly lower scores than either English speakers or Ukrainian speakers. In terms of attractiveness judgements, Cantonese speakers received significantly lower scores than Ukrainian speakers, who in turn received significantly lower scores than English speakers. For educatedness judgements, Ukrainian speakers received significantly lower scores than either Cantonese speakers or English speakers. The scores for Cantonese speakers and English speakers were not significantly different. For the judgements on speakers' wealthiness, English speakers received significantly higher scores than either Cantonese speakers or Ukrainian speakers. The difference between Cantonese speakers and Ukrainian speakers was not significant. For judgements on hard-workingness, overall ratings across the three groups of listeners given to Cantonese speakers were significantly higher than those given to both Ukrainian speakers and English speakers. The mean ratings for Ukrainian speakers and English speakers were not significantly different. The mean scores for each language group in terms of each personality trait are shown in Table 8.

Table 8.

Mean evaluation scores of each speaker group for each personality trait

	English	Cantonese	Ukrainian	Mean
intelligent	5.2	4.8	4.8	4.9
competent	5.1	4.7	4.7	4.8
cooperative	5.2	4.9	4.9	5.0
reliable	4.9	4.6	4.7	4.8
confident	5.0	4.2	4.7	4.6
sociable	5.0	4.3	4.6	4.6
interesting	4.4	3.9	4.2	4.2
attractive	4.6	4.2	4.1	4.3
educated	5.1	4.9	4.7	4.9
wealthy	4.4	4.2	4.2	4.3
hard-working	4.8	5.0	4.8	4.9
Mean	4.9	4.5	4.6	4.7

There was also a significant interaction effect of language groups and listener groups for the judgements on all personality traits except for competence and hard-workingness. The F-ratios are presented in Table 9, and means for interaction in Table 10. A series of t-tests revealed that the high school students in Vermilion evaluated the English speakers significantly more favourably than the Cantonese speakers on the

reliability scale, $t(39)=4.40$, $p<.001$. The high school students in Edmonton gave higher ratings to English speakers than to Cantonese speakers and Ukrainian speakers for the judgements on confidence, $t(57)=5.38$, $p<.001$; $t(57)=8.19$, $p<.001$, reliability, $t(57)=4.77$, $p<.001$; $t=3.68$, $p<.001$, and well-educatedness, $t(57)=7.11$, $p<.001$; $t(57)=4.94$, $p<.001$ (note that t values are presented in the order of Cantonese speakers and Ukrainian speakers respectively). The university students judged the Cantonese speakers significantly more negatively than the English speakers on the confidence scale, $t(39)=3.69$, $p<.001$. In terms of the attractiveness scale, the high school students in both Vermilion, $t(106)=4.438$, $p<.001$, and Edmonton, $t(97)=3.756$, $p<.001$, rated the Cantonese speakers significantly more negatively than did the university students. Vermilion listeners gave significantly lower ratings than the university students to the Cantonese speakers on the interestingness scale, $t(106)=4.376$, $p<.001$.

Table 9.

The interaction of language groups and listener groups on evaluations for each personality trait

personality traits	F	personality traits	F
intelligent	5.445*	attractive	5.990*
cooperative	5.054*	educated	5.204*
reliable	5.297*	wealthy	4.682*
confident	3.204*	kind	3.556*
sociable	4.307*	competent	1.248
interesting	5.578*	hard-working	.942

Note. df=2, 288. *p<.05.

Table 10.

Means for the interaction of language groups and listener groups on evaluations for each personality trait

Personality traits	English			Cantonese			Ukrainian		
	Univ.	Verm.	Edm.	Univ	Verm.	Edm.	Univ.	Verm.	Edm.
confident	4.8	4.9	5.2	4.3	4.1	4.2	4.6	4.7	4.6
intelligent	5.0	5.1	5.3	5.0	4.5	4.9	5.0	4.6	4.7
reliable	4.7	4.9	5.0	4.6	4.4	4.8	4.9	4.7	4.6
kind	4.9	5.1	5.1	5.1	4.9	5.2	4.9	5.0	5.1
attractive	4.7	4.6	4.5	4.6	3.8	3.8	4.6	4.0	4.0
educated	4.8	4.9	5.5	5.0	4.6	5.2	4.8	4.7	4.6
cooperative	5.0	5.2	5.3	4.8	4.7	5.0	5.1	4.9	4.8
sociable	4.8	4.9	5.0	4.6	4.1	4.4	4.8	4.5	4.5
interesting	4.3	4.1	4.5	4.4	3.6	4.0	4.6	4.0	4.1
wealthy	4.2	4.4	4.5	4.4	4.1	4.3	4.3	4.2	4.2

Note: Univ. = Edmonton, university; Verm. = Vermilion, high school; Edm. = Edmonton, high school.

The results for some of the personality traits are also plotted in Figure 8 and Figure 9.

Figure 8. Interaction of speakers' L1s and listener groups on reliability judgements

Figure 9. Interaction of speakers' L1s and listener groups on attractiveness judgements

Did the gender of the listeners affect their judgements?

In order to examine a possible gender effect on evaluations for all personality traits across listener groups, I conducted a mixed design ANOVA with language groups as the within factor and gender as a between factor. The main effect of gender was not significant. However, there was a significant interaction of speakers' L1 and listeners' gender, $F(2, 290)=3.442$; $p<.05$. The female listeners gave higher ratings to all language groups, especially to Cantonese and Ukrainian speakers. There was no gender difference

among listeners in their responses to the English speakers. Thus, it appeared that the female listeners evaluated foreign accented speakers more positively than the male listeners.

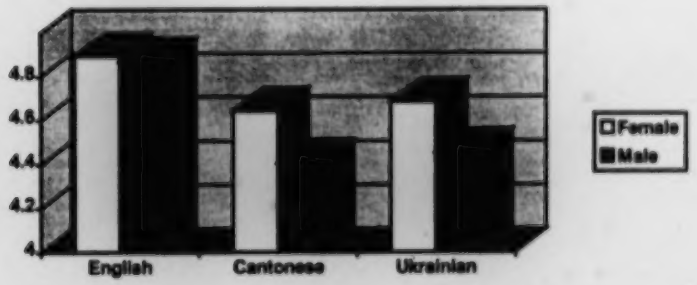
The mean scores for each language group and gender are tabulated in Table 11, and plotted in Figure 10.

Table 11.

Means for the interaction of language groups and listeners' gender

	Speakers' L1		
Listeners' gender	English	Cantonese	Ukrainian
female	4.9	4.6	4.7
male	4.9	4.4	4.5

Figure 10. Interaction of language groups and listeners' gender



Unpaired t-tests revealed that male listeners evaluated Cantonese speakers significantly more negatively than female listeners, $p<.01$.

Is there a correlation amongst personality evaluation scores, accentedness, and comprehensibility ratings?

I examined correlations between personality evaluations and accentedness and comprehensibility ratings for Cantonese and Ukrainian speakers only, due to small listener variability of accent and comprehensibility ratings for English speakers. There was a small correlation between personality evaluations and comprehensibility ratings for both of the speaker groups, but there was no significant correlation between personality evaluations and accentedness ratings. Comprehensibility ratings and accentedness ratings also indicated a small but significant correlation. The r values are presented in Table 12.

Table 12.

Correlation amongst personality evaluations, accent, and comprehensibility ratings for NNSs

Ratings	Personality traits	Accent	Comprehensibility
	Cantonese (n=166)		
Personality traits	--	-.006	.299*
Accent		--	-.169*
Comprehensibility			--
	Ukrainian (n=166)		
Personality traits	--	-.038	.253*
Accent		--	-.269*
Comprehensibility			--

Note: *α<.05.

Is there a correlation between evaluations of NNSs for each evaluative dimension and accentedness/comprehensibility ratings?

In addition, a correlation between evaluation and accentedness/comprehensibility ratings was examined for each of the five evaluative dimensions. Note that the speech characteristics dimension only included ratings on pleasantness of voices for this analysis. The results are tabulated in Table 13 to Table 17. Ratings of all five evaluative dimensions were significantly correlated with comprehensibility ratings for both Cantonese and Ukrainian speakers. Ratings of the personality dimension and speech characteristics dimension showed a small but significant correlation with accent ratings for Ukrainian speakers. Ratings of the stereotyping dimension were significantly correlated with accent ratings for Cantonese speakers.

Table 13.

Correlations between evaluations on personality dimension and accent/comprehensibility ratings for NNSs

Personality dimension	accent	comprehensibility
Cantonese (n=166)	.022	.533*
Ukrainian (n=166)	-.178*	.554*

Note: *α<.05.

Table 14.

Correlations between evaluations on solidarity dimension and accent/comprehensibility ratings for NNSs

Solidarity dimension	accent	comprehensibility
Cantonese (n=166)	-.0008	.611*
Ukrainian (n=166)	-.102	.545*

Note: *α<.05.

Table 15.

Correlations between evaluations on speech characteristics (pleasantness of voices) and accent/comprehensibility ratings for NNSs

Speech characteristics	accent	comprehensibility
Cantonese (n=166)	-.0009	.621*
Ukrainian (n=166)	-.123*	.662*

Note: *α<.05.

Table 16.

Correlations between evaluations on stereotyping dimension and accent/comprehensibility ratings for NNSs

Stereotyping dimension	accent	comprehensibility
Cantonese (n=166)	-.177*	.452*
Ukrainian (n=166)	-.088	.515*

Note: *α<.05.

Table 17.

Correlations between evaluations on status dimension and accent/comprehensibility ratings for NNSs

Stereotyping dimension	accent	comprehensibility
Cantonese (n=166)	-.121	.432*
Ukrainian (n=166)	-.186*	.509*

Note: *α<.05.

Did correlations between personality judgements and accentedness/comprehensibility ratings vary amongst three listener groups?

I further examined how each of the listener groups' evaluations for each evaluative dimension and accentedness/comprehensibility ratings were related. The results are presented in Table 18 to 22. Correlations between evaluations and

accentedness/comprehensibility ratings varied among the three listener groups, depending on speakers' L1 and evaluative dimensions.

Again, evaluations and accentedness ratings were not significantly correlated except for the evaluations given to the Ukrainian speakers by the high school students in Vermilion. Evaluations were significantly correlated with comprehensibility in most of the cases. The exceptions were Edmonton high school students' evaluations of both of the NNS groups and university students' evaluations of Cantonese speakers in terms of status dimension.

Table 18.

Correlations between each listener group's evaluation for personality dimension and accentedness/comprehensibility ratings

Listener group	Accentedness		Comprehensibility	
	Cantonese	Ukrainian	Cantonese	Ukrainian
Edmonton, Univ.	.069	-.124	.346*	.628*
Vermilion, high	-.131	-.310*	.563*	.545*
Edmonton, high	.067	-.086	.549*	.561*

Note: dfr=38 (Univ.), 66 (Vermilion, high), and 56 (Edmonton, high). *α<.05.

Table 19.

Correlations between each listener group's evaluation for solidarity dimension and accentedness/comprehensibility ratings

Listener group	Accentedness		Comprehensibility	
	Cantonese	Ukrainian	Cantonese	Ukrainian
Edmonton, Univ.	.026	-.028	.390*	.579*
Vermilion, high	-.137	-.212	.645*	.526*
Edmonton, high	.051	-.064	.637*	.617*

Note: dfr=38 (Univ.), 66 (Vermilion, high), and 56 (Edmonton, high). *α<.05.

Table 20.

Correlations between each listener group's evaluation for speech characteristics dimension (pleasantness of voices) and accentedness/comprehensibility ratings

Listener group	Accentedness		Comprehensibility	
	Cantonese	Ukrainian	Cantonese	Ukrainian
Edmonton, Univ.	.066	-.145	.450*	.676*
Vermilion, high	-.071	-.134	.673*	.639*
Edmonton, high	.023	-.198	.586*	.665*

Note: dfr=38 (Univ.), 66 (Vermilion, high), and 56 (Edmonton, high). *α<.05.

Table 21.

Correlations between each listener group's evaluation for stereotyping dimension and accentedness/comprehensibility ratings

Listener group	Accentedness		Comprehensibility	
	Cantonese	Ukrainian	Cantonese	Ukrainian
Edmonton, Univ.	.121	-.122	.172*	.566*
Vermilion, high	-.065	-.095	.444*	.506*
Edmonton, high	.282*	-.088	.344*	.545*

Note: dfr=38 (Univ.), 66 (Vermilion, high), and 56 (Edmonton, high). *α<.05.

Table 22.

Correlations between each listener group's evaluation for status dimension and accentedness/comprehensibility ratings

Listener group	Accentedness		Comprehensibility	
	Cantonese	Ukrainian	Cantonese	Ukrainian
Edmonton, Univ.	.070	-.291	.273	.649*
Vermilion, high	-.066	-.077	.429*	.290*
Edmonton, high	.081	-.173	.088	-.0008

Note: dfr=38 (Univ.), 66 (Vermilion, high), and 56 (Edmonton, high). *α<.05.

Did the three groups of listeners rate ESL speakers differently in terms of accentedness and comprehensibility?

The main effect of listener groups was significant for both Cantonese speakers, $F(2, 158)=3.106$; $p<.05$, and Ukrainian speakers, $F(2, 138)=4.248$; $p<.05$, in terms of accent ratings, and for Cantonese speakers, $F(2, 161)=3.536$; $p<.05$, in terms of comprehensibility ratings. The main effect of listener groups on comprehensibility ratings was not significant for the Ukrainian speakers. A Newman-Keuls post hoc test revealed that listener groups in Edmonton gave significantly higher accent ratings than the listeners in Vermilion to Ukrainian speakers, $p<.05$. In terms of comprehensibility ratings, the post hoc test revealed that the high school students in Vermilion gave significantly lower ratings than the high school students in Edmonton to Cantonese speakers. The ratings of university students were not significantly different from those of the two groups of high school students.

Table 23.

Means for accentedness and comprehensibility ratings by the three listener groups

	Cantonese		Ukrainian	
listener groups	accentedness	comprehensibility	accentedness	comprehensibility
Edmonton, Univ.	5.0	4.4	5.4	4.1
Vermilion, high	4.6	3.9	4.9	3.9
Edmonton, high	5.0	4.3	5.3	4.2

Did the perceived ethnic background of speakers influence listeners' evaluations?

Although there were significant differences in ratings for the three groups of speakers depending on their L1 backgrounds, not all listeners were able to identify the speakers' ethnic backgrounds correctly. In fact, a large proportion of the listeners, the listeners in Vermilion in particular, were unable to identify the L1s of Ukrainian and Cantonese speakers, and listeners' guesses of the speakers' L1 and ethnic background varied a great deal. Therefore, it was less likely that all of the listeners actually differentiated their evaluations on the basis of perceiving the speaker to be a Cantonese speaker or a Ukrainian speaker. Instead, some listeners may have based their evaluations on their *perceptions* of the speakers' ethnic backgrounds.

In order to examine the relationship between the perceived ethnic background of the speakers and the evaluations that they received, I first rank-ordered the eight speakers whose L1s were not English by their mean evaluation scores from highest to lowest. In the next column, I indicated the rank order of the perceived accentedness scale, with '1' being least accented and '8' being most accented. I also indicated the rank order of comprehensibility ratings from '1' being most comprehensible and '8' being least comprehensible. I then calculated the percentage of listeners who thought that a speaker's L1 was an "Asian" or "Oriental" language, and a "European" language. The category "Asian" or "Oriental" includes languages such as Chinese, Japanese, Vietnamese, Indian, Korean, and Filipino languages. "European" languages include those languages which are Germanic, Romance, and Slavic in origin. Secondly, I calculated what percentage of listeners thought that each speaker was either from Asia or

Europe. I only examined Asian and European backgrounds, because the majority of the listeners guessed the speakers' background to be roughly either Asian or European.

First, all the speakers across listener groups were examined. The results are shown in Table 24. Results show that the rank order of accentedness and comprehensibility ratings does not correspond to the rank order of evaluation scores. The top two speakers in terms of evaluations are two Ukrainian speakers who were perceived as most likely to be from Europe or whose L1s were perceived to be European languages, and who were perceived least likely to be from Asia or whose L1s were perceived not to be languages spoken in Asia. One can therefore conclude that listeners' perception of speakers' ethnic backgrounds was partially related to the evaluations.

Table 24.

Rank order of evaluations, accentedness, and comprehensibility scores, and perceived ethnic backgrounds and L1s of the ESL speakers by all the listeners

	Rank orders			**Perceived ethnic background**		**Perceived L1**	
speakers	evaluation	accent	comp.	Asia	Europe	Asian	European
U-d	**1**	**5**	**2**	**8 (%)**	**59 (%)**	**7 (%)**	**73 (%)**
U-c	**2**	**5**	**3**	**3**	**54**	**4**	**74**
C-b	3	6	7	24	46	25	54
C-c	4	7	5	77	5	83	9
C-d	4	1	1	18	28	17	51
U-a	**6**	**8**	**8**	**38**	**42**	**32**	**49**
C-a	7	3	6	78	4	83	11
U-b	**8**	**2**	**4**	**11**	**47**	**12**	**61**

Note: U = Ukrainian; C = Cantonese; a, b, c, and d stand for each speaker; comp. = comprehensibility. For the sake of clarity, Ukrainian speakers are indicated in bold font.

Did perception of speakers' ethnic backgrounds influence speakers' evaluations of NNSs depending on the listener groups?

I further broke down the data of each listener group, and tabulated the rank order of evaluations, accentedness ratings, and comprehensibility ratings as well as speakers' perceived ethnic/L1 backgrounds in Table 25 to Table 27.

Table 25.

Rank order of evaluations, accentedness, and comprehensibility scores, and perceived ethnic backgrounds and L1s of the ESL speakers by the university students in Edmonton

	Rank orders			**Perceived ethnic background**		**Perceived L1**	
speakers	evaluation	accent	comp.	Asia	Europe	Asian	European
U-d	**1**	**3**	**2**	**3 (%)**	**75 (%)**	**3 (%)**	**80 (%)**
C-b	2	7	7	30	55	30	50
U-c	**3**	**5**	**3**	**3**	**78**	**5**	**88**
C-c	4	6	4	88	3	88	5
C-a	5	4	6	90	5	90	10
C-d	6	1	1	23	25	20	45
U-a	**7**	**8**	**8**	**38**	**35**	**45**	**45**
U-b	**8**	**2**	**5**	**10**	**68**	**10**	**78**

Table 26.

Rank order of evaluations, accentedness, and comprehensibility scores, and perceived ethnic backgrounds and L1s of the ESL speakers by the high school students in Vermilion

	Rank orders			**Perceived ethnic background**		**Perceived L1**	
speakers	evaluation	accent	comp.	Asia	Europe	Asian	European
U-d	**1**	**4**	**3**	**12 (%)**	**38 (%)**	**9 (%)**	**66 (%)**
U-c	**2**	**4**	**2**	**4**	**40**	**4**	**80**
C-b	3	6	7	16	38	22	56
U-a	**4**	**8**	**8**	**28**	**44**	**26**	**54**
C-d	5	1	1	12	25	10	57
C-c	6	7	5	65	9	74	16
U-b	**7**	**2**	**4**	**9**	**34**	**10**	**53**
C-a	8	3	6	62	3	74	15

Table 27.

Rank order of evaluations, accentedness, and comprehensibility scores, and perceived ethnic backgrounds and L1s of the ESL speakers by the high school students in Edmonton

	Rank orders			**Perceived ethnic background**		**Perceived L1**	
speakers	evaluation	accent	comp.	Asia	Europe	Asian	European
U-d	**1**	**5**	**3**	**8 (%)**	**73 (%)**	**7 (%)**	**76 (%)**
C-c	2	7	5	85	2	90	3
U-c	**3**	**2**	**2**	**3**	**59**	**3**	**71**
C-d	4	1	1	22	34	24	49
C-a	5	4	6	88	3	90	7
C-b	6	6	7	29	51	24	54
U-b	**7**	**3**	**4**	**15**	**49**	**15**	**59**
U-a	**8**	**8**	**8**	**49**	**37**	**37**	**44**

The listeners in Edmonton were in general more successful in guessing speakers' ethnic and L1 backgrounds than the listeners in Vermilion. The extent to which the listeners' evaluations and perception of speakers' ethnic backgrounds were related seems to differ among listener groups. Speakers' perceived ethnic backgrounds negatively correlated with the rank order of evaluations given by high school students in Vermilion.

For the Cantonese speakers, those whom a higher percentage of the listeners perceived as Asian were evaluated more negatively than most of the other speakers. One exception was Ukrainian speaker B, who was evaluated more negatively than Cantonese speaker C; more listeners perceived Cantonese speaker C as non-white than Ukrainian speaker B. As one possibility, I counted how many listeners thought that Ukrainian speaker B was aboriginal, and compared it to the other seven speakers. In terms of mere number, a relatively higher number of listeners (i.e. seven listeners as opposed to 0 to 1) thought that she was of First Nations background.

CHAPTER 4: DISCUSSION AND CONCLUSIONS

Discussion

Evaluations of NSs vs. NNSs

As expected, Cantonese speakers and Ukrainian speakers received significantly more negative evaluations than English speakers. The difference, however, was not so large; as long as the listener groups are not considered, the listeners in the present study favoured NSs only slightly more than NNSs.

Listener groups and evaluations of speakers across personality traits

There was a difference among the three listener groups in terms of how the listeners evaluated NSs and NNSs. It appears that the university students in Edmonton did not evaluate NSs more positively than NNSs, while the two groups of high school students in general tended to evaluate NSs slightly, although not significantly, more favourably than NNSs. It is especially noteworthy that the high school students in Vermilion evaluated Cantonese speakers more negatively than the other two listener groups. In fact, the high school students in Vermilion are the only listeners who differentiated their evaluations of Cantonese speakers from those of Ukrainian speakers. It may be that their relatively negative evaluations of Cantonese speakers have to do with their unfamiliarity with a Cantonese accent.

Evaluations by three listener groups in terms of five evaluative dimensions

The evaluations showed somewhat different patterns depending on the evaluative dimensions and the listener groups. In terms of personality dimension, the high school students generally evaluated NSs more favourably than NNSs. They judged that NSs

were more intelligent, competent, confident, kind, and sociable than NNSs. They also evaluated NSs more positively than NNSs on the solidarity dimension, indicating that they were more willing to associate with NSs than with NNSs. In terms of the stereotyping dimension, they did not judge English speakers to be more hard-working or wealthy than NNSs.

For the stereotyping dimension, although the differences did not reach the significance level, Cantonese speakers received slightly higher scores than English speakers and Ukrainian speakers from the listener groups in Edmonton. Considering the fact that the listeners in Edmonton were better than the listeners in Vermilion at identifying the Cantonese speakers' L1, it is possible that the Edmonton listeners associated a Cantonese or Chinese accent with the stereotype of Cantonese speakers as relatively wealthy and hard-working. The Vermilion listeners' lack of distinction among speaker groups may be due to the fact that they were not as successful in identifying the speakers' L1s correctly.

In terms of the status dimension, the high school students in Vermilion judged the Cantonese speakers to be less educated than the English speakers, whereas the high school students in Edmonton felt that the Ukrainian speakers were less educated than the English speakers. It is especially interesting to note that the high school students in Vermilion did not differentiate their evaluations of the Cantonese speakers from those of the Ukrainian speakers, while the high school students in Edmonton did. The judgements on this dimension may partly be a function of the stereotype with which the listeners associated the speakers' accents. Edmonton high school students may have based their

judgements on what they know, because they may have been more familiar than their counterparts in Vermilion with Cantonese speakers.

While the high school students generally indicated negative judgements of NNSs, the university students did not. In some cases, the university listeners evaluated NNSs more positively than NSs. However, it is noteworthy that, although the difference was not statistically significant, they gave higher scores to the Ukrainian speakers than to the Cantonese speakers: they judged that the Ukrainian speakers were more reliable, cooperative, interesting, and attractive. The impression or image of Ukrainian speakers or their experience with them may have influenced their judgements.

In general, the high school listeners in Edmonton evaluated Cantonese speakers and Ukrainian speakers differently, possibly indicating that they based their judgements on the social information they had of each language group. The Vermilion group, on the other hand, evaluated NNSs, especially the Cantonese speakers, more negatively than NSs. Although the difference was not significantly large, the fact that the high school students in Vermilion gave relatively more positive scores to Ukrainian speakers than to Cantonese speakers may imply that familiarity with a Ukrainian accent and Ukrainian speakers had a positive influence on their judgements. If this is the case, then the results of the study confirm the positive effect of familiarity with a particular language variety (Gass & Varonis, 1984). This finding may be consistent with Nesdale's and Rooney's (1996) suggestion that adolescents evaluated Italo-Australians more positively than Viet-Australians because the former were more established. In the present study, it may be possible that Ukrainian speakers received more positive evaluations than Cantonese

speakers from Vermilion high school students because Ukrainian speakers are more established in the Vermilion community. It is also possible, however, that the relatively positive perception of the Ukrainian speakers in comparison to the Cantonese speakers by the Vermilion students had to do with the listeners' reactions to different races. In other words, the listeners reacted more positively to the non-visible minority group than to the visible minority group.

Also, the fact that the university students did not evaluate NNSs negatively may be due to their familiarity with cultural and linguistic diversity. The age factor may also have played a role. The average age of the university students was 22 years, while that of the high school students was 17 years. Clearly, the education level of the university students is higher than those of the high school students, some of whom were not destined to go to university. Thus, education may have had a positive effect on the attitudes of the university students. It is also possible that the university students' experience with various cultures (more university students, for example, have been overseas than high school students) may have influenced their attitudes towards NNSs. Judging from the education level of the university students' parents, it can be inferred that their socio-economic status also varied from that of the high school students. The most noticeable difference was the proportion of listeners' parents who have graduate degrees. More specifically, a larger percentage of the parents of the university students have graduate degrees than do the parents of the high school students. Although parents' education level is not an immediate indication of the listeners' socio-economic status, it can still be hypothesized that the university students were from relatively educated family

backgrounds. Thus, it may be suggested that the more education one receives, the more tolerance with diversity one may develop. Even though the university students appeared to be more tolerant, however, higher solidarity ratings given by the university students to the Ukrainian speakers than to the Cantonese speakers may indicate that tolerance does not necessarily translate to positive attitudes towards a particular language group.

Evaluations for speaker groups by listener groups on each personality trait question

As mentioned above, listeners did not evaluate each speaker in the same way across all personality trait questions. Thus, the listeners were able to judge speakers according to the questions they were asked. In addition, listeners' judgements did not always consist of a dichotomous distinction between NSs and NNSs.

Across listener groups, NNSs were judged to be less intelligent, less competent, less wealthy, and less cooperative than NSs. In terms of the judgements on speakers' reliability, confidence, sociability, and interestingness, Cantonese speakers received more negative evaluations than either English speakers or Ukrainian speakers. Both of the NNS groups were judged to be less attractive than the NSs, and furthermore, Cantonese speakers were judged to be less attractive than Ukrainian speakers. However, Cantonese speakers were judged to be more hard-working than Ukrainian speakers and English speakers. In general, Cantonese speakers tended to be evaluated more negatively than the other speaker groups, especially NSs.

However, relatively negative attitudes towards Cantonese speakers were not so prominent amongst listeners in Edmonton. The university students in particular did not evaluate Cantonese speakers negatively in comparison to other speaker groups except for

the confidence judgements. It is possible that the university students judged Cantonese speakers to be less confident because of voice qualities such as clarity rather than because of their accent. Moreover, they did not evaluate NNSs in general more negatively than NSs, which may indicate that the accents were not the primary basis of evaluations for the university students. On the other hand, the listeners in Vermilion consistently evaluated Cantonese speakers more negatively than either of the other speaker groups or the other listener groups on all the personality traits, although the differences were not significant for some of the traits. Thus, it is likely that Vermilion listeners reacted rather negatively to Cantonese accents, and they evaluated the Cantonese speakers negatively regardless of the aspect of personality that they were asked to judge. As suggested earlier, the Vermilion listeners' negative reactions to the Cantonese speakers may be due to the listeners' unfamiliarity with the accent, or possibly to negative images that are associated with the accent.

The gender of the listeners and their evaluations

It appears that the female listeners evaluated NNSs more positively than the male listeners. In particular, the male listeners evaluated the Cantonese speakers more negatively than the other speakers. However, the difference between evaluations of Cantonese speakers and Ukrainian speakers was not noticeably large. Thus, I suggest that the female listeners in this study had relatively more positive attitudes towards NNSs than the male listeners. In addition, the gender effect might have contributed to the university students' attitudes towards NNSs, since the university students had the largest proportion of female listeners amongst the three listener groups.

Correlation amongst personality judgement scores, accentedness, and comprehensibility ratings

Contrary to previous findings (Giles, 1972), the degree of perceived accentedness was not correlated with personality judgements. Instead, a small but significant correlation suggested that personality judgements were correlated with comprehensibility ratings. The correlation between comprehensibility ratings and accentedness ratings was small. Thus, it seems that accent was not the only factor that affected the comprehensibility judgements. The relatively larger correlation between personality judgements and comprehensibility ratings for Cantonese speakers may indicate that the listeners based their judgements of the speakers' personality on the ease of understanding the speech, rather than on the social information that the accent carries.

Correlations between judgements on each evaluative dimension and accentedness/comprehensibility ratings

The judgements given to the Cantonese speakers were not correlated with accentedness ratings for any of the evaluative dimensions except stereotyping. The correlations were significant for the Ukrainian speakers in some of the dimensions, but they were very small. The relative lack of correlation between evaluations and accentedness ratings for the Cantonese speakers may be partly due to the small speaker variability in terms of accentedness amongst the Cantonese speakers.

However, the evaluations and comprehensibility judgements were moderately correlated for all five dimensions, especially for the personality trait, solidarity, and speech characteristic dimensions. The easier to understand the speech was perceived to

be, the more positively the speakers were judged. Particularly noteworthy is the correlation between the judgements on pleasantness of voice and comprehensibility. In terms of pleasantness of voice, ease of understanding of utterances was more of an issue to the listeners than the degree of accentedness. Here, the irritation factor may have come into play: the utterances that were more difficult to understand and hence took more effort to comprehend might have sounded irritating to the NSs' ears. Relatively smaller correlations for status and stereotyping dimensions may indicate that comprehensibility was not perceived to be as strong an indication of the education level, hard-working quality, and wealthiness of the speakers as other aspects such as the speakers' intelligence, competence, and attractiveness. Another possibility is that the guessing involved in the status and stereotyping dimensions was rather difficult for the listeners in this study.

Correlations between judgements by each listener group on each evaluative dimension and accentedness/comprehensibility ratings for NNSs

In terms of personality, solidarity, speech characteristics (pleasantness of voice), and stereotyping dimensions, the evaluations given by all three listener groups were moderately correlated with comprehensibility ratings for both Cantonese speakers and Ukrainian speakers. However, the evaluations by the university students in Edmonton had smaller correlations with comprehensibility ratings for Cantonese speakers. The stereotyping dimension in particular showed only a small correlation. Thus, for the university students, comprehensibility of Cantonese speakers' speech was not so relevant in terms of judging Cantonese speakers' wealthiness and hard-workingness. It might

suggest that the university students directly associated speakers' accents with social stereotypes, whereas other listeners were relatively more dependent on speech quality than on social information to evaluate speakers for the stereotyping dimension.

In terms of the status dimension, the fact that comprehensibility ratings and the evaluations of Cantonese speakers by the Edmonton listeners were not correlated may also indicate that the listeners were able to make judgements on the basis of social information or a stereotype that they associated with the speakers' L1. It is possible that since more or less correct identification of the speakers' L1 and social information on the particular language group are requisites to make such a direct association, the listeners in Vermilion relied more on comprehensibility of speech than on guessing the speakers' backgrounds: due to a very small Chinese population in Vermilion, the high school students may not have had much contact with Cantonese speakers. Recall Nesdale's and Rooney's (1996) finding that the listeners in their study seemed to have relied on their perception of accentedness in making judgements on speakers' status when they were not certain about the speakers' ethnic backgrounds. However, it is not clear why a correlation between comprehensibility ratings and university students' evaluations of Ukrainian speakers—but not comprehensibility ratings and the other two listener groups' evaluations—was moderate. Perhaps a Ukrainian accent itself did not evoke speakers' education level for the university students.

Accentedness and comprehensibility ratings by the three listener groups

The listeners in Edmonton gave higher accentedness ratings than the high school students in Vermilion to the Ukrainian speakers, indicating that the Edmonton listeners

rated the accentedness of the Ukrainian speakers more harshly than the Vermilion listeners. It is possible that the Vermilion listeners were more used to hearing Ukrainian or Slavic accented speech, because the Ukrainian population is proportionally larger in Vermilion than in Edmonton.

However, the Edmonton listeners rated Cantonese speakers' accentedness slightly, although not significantly, more harshly than the Vermilion listeners. If familiarity with certain language varieties has a positive effect on listeners' perceptions of NNSs' speech, Vermilion students would be expected to be harsher on their accentedness ratings for the Cantonese speakers. In addition, the Edmonton listeners, the high school students in particular, gave higher comprehensibility ratings than the Vermilion listeners to the Cantonese speakers. Recall that in Flege's and Fletcher's study (1992), NS listeners gave harsher accent judgements to NNSs' speech in the second session when they became more familiar with the speech. Thus, it may be the case that the listeners who were relatively more familiar with foreign accented speech were more confident in understanding the speech, but at the same time they were more sensitive to acoustic variability.

Perceived ethnic background and evaluations of NNSs

The speakers who were perceived to be of European background by the largest proportion of the listeners received the most positive evaluations. With the exceptions of Ukrainian speaker B and Cantonese speaker C, the speakers who were perceived to have a European background more than an Asian background tended to be evaluated positively. Cantonese speaker C obviously does not conform to the pattern. Even though

most of the listeners thought that she was Asian, she received higher ratings than Ukrainian speakers A and B. Also, Ukrainian speaker B received the most negative evaluations, despite the fact that she was not perceived to be heavily accented, and that she was perceived to be moderately comprehensible and more likely to be European than Asian. Therefore, when all of the listeners were considered, a perceived Asian or European background was not the sole determinant of their evaluations.

Perceived ethnic background and evaluations of NNSs by the three groups of listeners

It seems that the listeners' guesses of speakers' ethnic backgrounds were most closely related to listeners' evaluations for the high school students in Vermilion. The rank order of NNSs in terms of their evaluations roughly corresponds to the order of the proportion of listeners who thought that the speakers were of European background. This trend is clearer for the Cantonese speakers. Cantonese speakers B and D were perceived to be of European background by a larger percentage of the listeners than the other two Cantonese speakers, and the former were evaluated more positively than the latter. Also, Cantonese speakers A and C were thought to be more clearly Asian than European, and they were evaluated more negatively than the other two Cantonese speakers. For the Ukrainian speakers, however, the relationship between perceived ethnic background and evaluations is not so apparent. It may have something to do with the fact that the percentage of listeners who thought that the Ukrainian speakers' L1s were European languages contains a rather substantial population of the listeners who guessed that the Ukrainian speakers were from Canada or the US. In other words, Vermilion listeners' designation of the Ukrainian speakers as Asian vs. European was not so clear.

Nonetheless, there seems to be a trend that the Ukrainian speakers whose L1s were perceived to be European languages received more positive evaluations than otherwise.

In terms of the listeners in Edmonton, the relationship between overall rank order of speakers by the evaluation scores and perceived ethnic background seems different for Cantonese speakers and Ukrainian speakers. The evaluations of Ukrainian speakers by the high school students in Edmonton seem to be related to the extent to which the speakers were perceived to be of European background. The Ukrainian speakers who were perceived to be of European background by a larger proportion of listeners received more positive personality judgements. On the other hand, this pattern is not present for the Cantonese speakers. For instance, although half of the listeners thought that Cantonese speaker B was European, her personality judgement scores were lower than those of Cantonese speaker A. Thus, the high school students in Edmonton may have taken into account their perceptions of speakers' ethnic backgrounds when they judged the personality traits of the Ukrainian speakers but not when they judged the Cantonese speakers. On the other hand, the university students' evaluations of either the Cantonese speakers or the Ukrainian speakers and their perception of the speakers' ethnic backgrounds do not seem to be related. Thus, the university students in Edmonton were least likely to be influenced by their perception of the speakers' ethnic background in making personality judgements.

It is of particular interest that Ukrainian speaker B was consistently evaluated negatively by all three listener groups. I don't have a clear explanation for this. As suggested earlier, the negative evaluations she received may have been due to the fact that

she was perceived as aboriginal more often than the other NNSs. In fact, the listeners in Edmonton who perceived her to be aboriginal gave her noticeably low evaluation scores (ranging from 1 to 3) across all the questions. Thus, it may have been the case that negative attitudes toward aboriginal people were covertly articulated in the rather negative evaluations towards Ukrainian speaker B.

Summary

The high school listeners in the present study tended to evaluate NSs more positively than NNSs. The evaluation patterns differed depending on the kinds of questions the listeners were asked, and such differences sometimes seemed to have demonstrated the stereotypes that are associated with certain accents. The university listeners, however, did not tend to evaluate NNSs on the basis of racial stereotypes. The listener groups who were more likely to have had experience in having contact with certain ethnic groups seemed to evaluate speakers in terms of perception of the individuals' voices rather than some stereotypical information of ethnic groups. In addition, the listeners who were more likely to be familiar with linguistic diversity seemed to feel that NNSs' speech was easier to understand than the listeners who were less likely to be familiar with it, but the former seemed to have become more sensitive to divergence from a perceived pronunciation norm.

Conclusions

Factors affecting NSs' evaluations of NNSs

Contrary to my initial hypothesis and previous studies (Giles, 1975; Brennan & Brennan, 1981; Nesdale & Rooney, 1996), degree of accentedness was not correlated

with NSs' evaluations. Instead, evaluations were correlated with perceived ease of understanding NNSs' speech. Although it is not clear whether perceived comprehensibility influenced evaluations, or whether perceived personality of NNSs influenced comprehensibility, it seems more likely that perceived comprehensibility influenced evaluations. If comprehensibility of speech influenced personality judgements of NNSs, then improvement of comprehensibility of speech would have a positive effect on cross-cultural communication and contact. Also, the fact that accentedness ratings and comprehensibility ratings were not correlated seems to suggest that accent does not necessarily make NNSs' speech more difficult to understand. This resembles Derwing's and Munro's finding (1997) that although most participants' accent ratings and comprehensibility scores were significantly correlated, the correlation was rather weak.

The university students' judgements of the speakers' personality were mostly not significantly different for the speakers with different L1 backgrounds. It seems that the university students in the present study did not evaluate speakers on the basis of speakers' L1 backgrounds. Furthermore, their personality judgements of NNSs were not related to their perception of the speakers' ethnic background. Therefore, it was likely that the university students based their judgements of the speakers' personality not on the speakers' perceived ethnic background, but on how the speech sounded.

The two groups of high school listeners were similar to the extent that they both generally rated NSs more positively than NNSs. An important difference between the two groups of listeners is their evaluations of the Cantonese speakers. The high school students in Vermilion evaluated the Cantonese speakers more negatively than the

Ukrainian speakers, while the high school students in Edmonton did not clearly distinguish the two speaker groups in their evaluations. Such a difference may have to do with the unfamiliarity of the Vermilion listeners and the familiarity of the Edmonton high school listeners with a Cantonese accent and its speakers.

Another difference between the reactions of the two groups of high school students is that the evaluations of NNSs by the high school students in Vermilion seem to have been related to their perception of the NNSs' ethnic background, whereas the evaluations of NNSs by the high school students in Edmonton seem to have been related to the perceived ethnic background only of the Ukrainian speakers. Considering the fact that the Vermilion listeners evaluated the speakers whom they perceived to have European backgrounds more positively than the speakers whom they perceived to have Asian backgrounds, it is possible that the Vermilion listeners directed their negative reactions to visible minorities (assuming that they associated Europeans with a "white" population). On the other hand, for the Edmonton high school listeners, the ethnic background of the speakers was related to the evaluations of the Ukrainian speakers only. More specifically, the Ukrainian speakers who were perceived to be of European background by more listeners received higher personality ratings than otherwise. This might indicate that the high school students in Edmonton did indicate their preference for non-visible minorities over visible minorities. Nevertheless, the ethnicity of the Cantonese speakers was not as important in making judgements, perhaps because the high school students in Edmonton were likely to have had direct contact (e.g. in classrooms) with Cantonese speakers.

It is also possible that the relatively undiscriminating evaluations by the university students was a function of age difference, educational level, experience, gender, or a combination of the above. However, the difference between high school listeners in Vermilion and in Edmonton may indicate that familiarity was an important factor in the present study. It seems that familiarity with a particular ethnic group has an effect on NSs' perception of NNSs. If NSs are familiar with a specific ethnic group, their perception of NNSs may be largely determined at a personal level. If, on the other hand, the listeners never had personal interaction with members of a particular ethnic group, then the listeners' perception may be more strongly shaped by social information such as stereotypes and images of cultural groups that are associated with accents. Another side of the familiarity effect has to do with comprehensibility and accentedness judgements of foreign accented speech. The listeners in Edmonton gave higher comprehensibility ratings but harsher accentedness ratings to NNSs than did the Vermilion listeners. This finding suggests that familiarity with particular accents helps comprehensibility (cf. Gass & Varonis, 1984), while familiarity makes NSs more sensitive to acoustic deviations from their perceived norm. Therefore, an interplay of familiarity with accents and an understanding of diverse cultures seems to be necessary to facilitate cross-linguistic/cross-cultural communication.

Implications and limitations of the present study

This study has social, educational, and linguistic implications. The listeners in a rural community evaluated Cantonese speakers more negatively than NSs and Ukrainian speakers. Such a reaction might have been due to the listeners' relative unfamiliarity

with Cantonese speakers. If this was the case, then familiarity with diverse cultures and people may have a positive effect on NSs' perception of NNSs, and it would be important to encourage people to familiarize themselves with cultural and linguistic diversity to facilitate understanding of different cultures. However, in reality, immigrants tend to settle in city centres, and therefore rural communities tend to remain relatively homogeneous. If the Canadian government is serious about the integration of immigrants, the issue of geographical settlement must be addressed.

The linguistic and educational implications of the present study are interrelated. While some studies suggest that accent can reduce the intelligibility of NNSs' speech (Munro & Derwing, 1995a, 1995b), it is likely that comprehensibility can be facilitated by familiarity with speech variations. Thus, the mere presence of foreign accent may not always impede communication. In addition, there is growing evidence suggesting that an accent is permanent (Flege, 1984; 1988b; Flege, Munro, & MacKay, 1995; Long, 1990). Thus, it may be beneficial to investigate ways to make NSs familiar with various accents. In the present study, comprehensibility ratings and evaluations that NNSs received were moderately correlated. However, it is not clear whether perception of a speaker's personality influenced comprehensibility, or whether comprehensibility influenced NSs' judgements of a NNS's personality. If comprehensibility affects how a speaker is perceived, then the facilitation of comprehensibility would be important in personal interactions. If personality judgements affect comprehensibility, then comprehensibility would be partly a function of listeners' attitudes towards the speaker, and would have to be addressed accordingly.

The present study has methodological limitations. The stimulus voices were selected without consulting a third party of listeners prior to the experiments to ensure that they were all "good" representatives of the three accents. Another important issue is that the listeners were forced to make judgements on questions that the researcher provided. In fact, some listeners reported that making judgements on speakers' personalities based on voice cues alone was a difficult task. Although I kept the passage relatively short to avoid boring the listeners, it might also have made the task a difficult one.

This study is also limited in the sense that it eliminated the potential effect of the speakers' gender. For future studies, it may be valuable to compare the reactions to female and male NNSs.

Another point that needs to be raised is whether the degree of listeners' acceptance of foreign accent may differ in larger cities and in medium sized cities such as Edmonton. Moreover, among the metropolitan cities, people's reactions may vary depending on the current immigration situations of each city. Thus, it may be worthwhile to conduct similar studies in various metropolitan cities.

The present study was not able to pinpoint variables that affected listeners' evaluations. That is to say that, although familiarity with particular ethnic groups seems to have been an important factor, it was not made very clear if relatively non-discriminatory evaluations by the university students were due to their age, gender, socio-economic status, or education levels, or an interaction of each. Therefore, in future studies, these variables should be controlled.

The fact that some listeners—especially those who were most likely to be unfamiliar with foreign accented speech—had difficulties identifying speakers' L1 backgrounds obscured the effect of speakers' L1 backgrounds on listeners' evaluations. Thus, providing listeners with information about speakers (e.g. labelling speech with speakers' L1 background etc.; see Nesdale & Rooney, 1996) may produce different results.

Finally, the present study is limited in the sense that only NSs' responses were examined. Having NSs as the evaluators and NNSs as the evaluated grants agency only to NSs, and seems to focus on the unequal relationships between NSs and NNSs without investigating how these relationships may be contested. NNSs' responses should be collected and examined in a future study in order to gain more insight into social structures and ethnic relationships.

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APPENDICES

Appendix A

Stimulus text

Thirty years ago, Canadians thought the outlook for health was a very good one. With the development of antibiotics and vaccines, many diseases such as smallpox were eliminated. Today the picture doesn't look so good. Many viruses and bacteria have become resistant to drugs. In addition, new diseases have emerged. It seems as though the health problems of Canadians will not be solved by the year 2000 after all.

Appendix B

Questionnaire A

Instructions: Listen to each voice and answer the following questions by circling the number that is closest to your judgement or filling in the blank. Imagine that you are listening to someone's voice for the first time on the telephone or radio.

1. Do you think this speaker is intelligent?

Very unintelligent						Very intelligent
1	2	3	4	5	6	7

2. Do you think this speaker is competent?

Very incompetent						Very competent
1	2	3	4	5	6	7

3. *Do you think this speaker is wise?

Very unwise						Very wise
1	2	3	4	5	6	7

4. Do you think this speaker is confident?

Very unconfident						Very confident
1	2	3	4	5	6	7

5. Do you think this speaker is reliable?

Very unreliable						Very reliable
1	2	3	4	5	6	7

6. Do you think this speaker is cooperative?

Very uncooperative						Very cooperative
1	2	3	4	5	6	7

7. Do you think this speaker is kind?

Very unkind						Very kind
1	2	3	4	5	6	7

8. Do you think this speaker is sociable?

Very unsociable						Very sociable
1	2	3	4	5	6	7

9. *Do you think this speaker is friendly?

Very unfriendly 1 2 3 4 5 6 7 Very friendly

10. Do you think this speaker is interesting?

Very uninteresting 1 2 3 4 5 6 7 Very interesting

11. *Do you think this speaker is healthy?

Very unhealthy 1 2 3 4 5 6 7 Very healthy

12. Do you think this speaker is attractive?

Very unattractive 1 2 3 4 5 6 7 Very attractive

13. *Do you think this speaker is approachable?

Very unapproachable 1 2 3 4 5 6 7 Very approachable

14. *Do you think this speaker is likable?

Very unlikable 1 2 3 4 5 6 7 Very likable

15. *Can you imagine this speaker as your friend?

Not at all 1 2 3 4 5 6 7 Very much

16. *Do you think this speaker is successful in business?

Very unsuccessful 1 2 3 4 5 6 7 Very successful

17. Do you think this speaker is well-educated?

Very uneducated 1 2 3 4 5 6 7 Very educated

18. Do you think this speaker is wealthy?

Very poor 1 2 3 4 5 6 7 Very wealthy

19. Do you think this speaker is hard-working?

Very lazy						Very hard-working
1	2	3	4	5	6	7

20 How pleasant is the voice to you?

Very unpleasant						Very pleasant
1	2	3	4	5	6	7

21 Was the speech easy to understand?

Very difficult						Very easy
1	2	3	4	5	6	7

22. How old do you think the speaker is? _____

23. How accented did this person's speech sound to you?

No accent						Very strong
1	2	3	4	5	6	7

24. Where do you think this speaker is from?

_____

25. What do you think this person's first language is? _____

*These questions were excluded in the experiments in high schools.

Appendix C

Questionnaire B

Please answer the following questions about yourself.

1. Age _____
2. Female / Male
3. Do you have normal hearing? Yes / No
4. What is your mother's current occupation? _____
5. What is your father's current occupation? _____
6. What was the highest level of education your mother achieved?

   a. no high school b. some high school
   c. high school diploma
   d. some university (e g. University of Alberta), college (e.g. Lakeland College), or technical institution (e.g. NAIT)
   e. university (BA or equivalent) f. Masters or PhD
   g. I don't know

7. What was the highest level of education your father achieved?

   a. no high school b. some high school
   c. high school diploma
   d. some university, college, or technical institution
   e. university (BA or equivalent)
   f. Masters or Ph.D
   g. I don't know

1. List all the languages you speak fluently. _____

   _____

2. What language(s) do you speak most often? _____
3. List all the languages you have studied other than your first language. _____

   _____

4. If you have never studied any languages other than your first language, do you intend to do so in the future? Yes (Languages: _____) / No
5. Do you think learning a second language is important?

Not at all						Very important
1	2	3	4	5	6	7

6. Have you ever travelled outside of Alberta, but within Canada? If so, list the provinces and territories you've been to. _____

_____

7. Have you ever travelled outside of Canada? If you have, list all the countries you've been to. _____

_____

8. Have you ever lived abroad for more than three months? If you have, list all the countries in which you have lived, and indicate the approximate length of stay in each country (in months or years). Country: _____ length: _____

_____ _____

_____ _____

_____ _____

_____ _____

9. Have you had any contact with people whose first language is not English? If you have, how close was the relationship you had with them?

Acquaintance						Very close
1	2	3	4	5	6	7

10. What do you think about current immigration levels?

Too many immigrants are allowed					More immigrants should be allowed	
1	2	3	4	5	6	7

18. From which of these places should Canada be recruiting immigrants? (Circle as many as apply.)

r. Latin America/South America
b. African countries
c. Middle East
d. South Asia (e.g. India, Pakistan)
e. Britain
f. South East Asia (e.g. Vietnam, Malaysia)
g. Australia/New Zealand
h. USA
i. Western Europe
j. East Asia (e.g. China, Japan, Hong Kong, Korea)
k. Caribbean
l. Eastern Europe
s. other(s)

19. What criteria do you think the government should use in admitting immigrants to Canada? Circle as many as apply.

a. education level
b. occupation
c. English and/or French language skills
d. ethnic background
e. personal income
f. existing family in Canada
g. humanitarian reasons (e.g. refugees)
h. age
i. marital status
j. religion
k. criminal record
l. political involvement in first country
m. other _____

1. Indicate your opinion of multiculturalism on the scale below.

Everyone should adopt Canadian customs						It is important to support a variety of cultures
1	2	3	4	5	6	7

2. Which of the following sentences best describes your opinion of bilingualism?

u. English is all that is needed in Canada.
v. All Canadians should speak in English and French.
w. Everyone should be allowed to choose which language to speak.
x. People should be able to access all federal government services in either English or French.
y. I don't know.

1. What ethnic background do you consider yourself to be? _____
2. What generation Canadian do you consider yourself to be? _____
3. Comments:

_____

_____

_____